

**[Report 1929] / Medical Officer of Health, Essex County Council.**

**Contributors**

Essex (England). County Council.

**Publication/Creation**

1929

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ADMINISTRATIVE COUNTY OF ESSEX.

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**REPORT**

OF THE

**MEDICAL OFFICER OF HEALTH**

FOR THE YEAR 1929.

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**WILLIAM A. BULLOUGH, M.B., M.Sc., D.P.H.,**

COUNTY MEDICAL OFFICER OF HEALTH.

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**Chelmsford :**

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## PREFACE.

*To the Chairman and Members of the Public Health and Housing Committee  
of the Essex County Council.*

I have the honour to submit to you my Eleventh Annual Report for the Administrative County of Essex for the year 1929. This is the 40th Report which has been issued, and, at the request of the Ministry of Health, it is devoted in the main to a summing up of the year's work for which the County Council is primarily responsible. For the convenience of the general reader I have endeavoured in this Preface to summarise some of the most noteworthy facts and incidents.

The slightly increased birth rate recorded in 1928 was maintained in 1929, the figure 16.3 being the same for the Administrative County and England and Wales.

Unfortunately, the death-rate (11.2) is the highest experienced in the County since 1919, when the rate was 11.6. This is largely due to the increased mortality from influenza, heart disease, and diseases of the respiratory system.

There has also been a slight increase in the death-rate among infants under one year of age, the figure for 1929 being 53 as compared to 51 for 1928. A marked corresponding increase is shown in the rate for England and Wales from 65 to 74.

Sixty-nine cases of smallpox, mostly of the mild type, occurred in the Administrative County during the year, chiefly in the extra-metropolitan area, being the highest number of cases in any one year since 1904 when the previous epidemic waned. There was a marked reduction in the number of cases of enteric fever, the notification rate having fallen from 0.17 to 0.06, whilst the rates for scarlet fever and diphtheria remained practically the same as the previous year. A marked increase occurred in the number of cases of pneumonia.

The diagnosis and treatment of tuberculosis in all its forms continues as one of the main features of the work of the County Health Department. Each year every effort is made to maintain the County Scheme at the highest possible efficiency to ensure that each patient receives the best and earliest assistance and treatment. X-ray facilities have been extended, and were fully utilised. The greatest acquisition to the scheme has been the provision of the new Sanatorium at Black Notley for women and children, which was formally opened by the Minister of Health (The Right Hon. Arthur Greenwood, M.P.) on the 26th April, 1930. Full details of this modern institution which provides 184 beds will be included in next year's report.

Notifications of new cases of all forms of Tuberculosis again decreased from 1,375 in 1928 to 1,357 in 1929. It is pleasing to record that the notification rate continued to decrease, the figure being 1.22 for the year 1929 as compared to 1.50 for the quinquennial period 1922-26. There was, however, a slight increase in the death-rate, namely, from 0.75 in 1928 to 0.76 in 1929, whilst the death-rate for the quinquennial period 1922-26 was 0.84. The total number of cases on the registers of the local Medical Officers of Health increased from 10,505 in 1928 to 10,627 in 1929. There was also an increase of 604 in the number of patients applying at the various dispensaries for treatment during 1929.

Reference is made in the Report to the effect of the Local Government Act, 1929, upon the general public health services, particularly in their relationship to the poor law medical services. Unification of control and administration of these two services



operates as and from 1st April, 1930, and as required by the Act the County Council has under consideration the preparation of various schemes affecting re-arrangement of County districts, medical services, isolation hospitals, maternity and child welfare services, supervision of midwives, &c. A general review of this nature must of necessity be a lengthy proceeding, and it will require a good deal of wisdom and patience to secure for the Administrative County as a whole the improved Local Government Service which prompted the passing of the epoch-making Act.

The County's child welfare service has functioned successfully throughout the year. Despite the difficulties in maintaining a full staff of Health Visitors much good work has been accomplished, 50,119 visits being paid to expectant and nursing mothers by the Health Visitors and District Nurses, who also assisted at the various Child Welfare Centres. A helpful relationship is maintained between the Essex County Council and the Essex County Nursing Association.

Further developments in the care and treatment of crippled children have been rendered possible by the appointment of a whole-time trained orthopaedic masseuse (Miss J. L. Hodge), who took up duty in September, 1929. Helpful assistance has also been given by voluntary committees at several centres.

For the past ten years, Essex has taken a leading part in better milk production, having held competitions to encourage the introduction of modern methods at dairy farms. The results obtained during the present year have been very encouraging, seeing that the competition was limited to those farms which had never previously been awarded a diploma in such a competition. This restriction served the purpose of attracting new entrants and by this means additional sets of cowmen came under educative influences.

The Milk and Dairies Order, 1926, has now been in operation for three years, and its provisions have assisted in obtaining necessary improvements to cowsheds and dairies, and in raising generally the standard of milk production. Certain periods of grace were allowed for compliance with particular requirements of the Order, but the last of these periods expired on 30th September, 1929. The time would, therefore, appear to be opportune for Medical Officers of Health and Sanitary Inspectors to review the whole of the cowsheds and dairies in their respective areas to ensure (1) that each complies with the requirements of the Order and (2) that modern methods are being practised regularly, resulting in clean buildings, clean milkers, clean cows, and clean utensils, so that the product will be milk of good nutritious and keeping quality.

The housing figures for 1929 have not yet been received from all the Sanitary Districts, but those for 1928 show that 12,684 dwelling houses were erected as compared with 13,791 in 1927. Dagenham again showed the largest number of houses erected, namely, 4,165.

Housing continues to engage the attention of Local Sanitary Authorities, and from the figures shown in the table on page 22A there would appear to be a better endeavour to deal with houses which have been scheduled as unfit for human habitation. The year 1928 saw the greatest number of unfit houses demolished in any one year since the war, and presumably, alternative accommodation was readily available for the displaced tenants.

Standards of housing vary in different districts, and it is generally recognised that the standard adopted in any district bears a close relationship to the number of bad houses in such district. The standard accepted before the war was too low



resulting in long rows of monotonous box-like dwellings, crowded together on limited areas. The general public have now been educated up to a higher standard which has been met by the erection of Council houses. The great need to-day is the provision of well built houses at a rent within the means of the lowest paid worker, and this matter is engaging the attention of some of the Local Sanitary Authorities in the County.

Some of this need can be and is being met by the re-conditioning of old houses. To this end, many farmers have taken advantage of the assistance available under the Housing (Rural Workers) Act, 1926, the object of which is mainly to re-model sound old country cottages which have become dilapidated or derelict. During the year I have had an opportunity of inspecting several of these renovated cottages with the County Land Agent, and his Committee is to be congratulated upon the pleasing and satisfactory results obtained. Derelict cottages have been extended and modernised without in any way interfering with the rural aspect of the buildings.

In consequence of the exceptionally low rainfall during the first nine months of 1929, opportunity was taken to ascertain the position in respect to water supplies in each parish. According to the returns obtained from the local Medical Officers of Health, 21 per cent. of the parishes in the rural districts in Essex are without a public water supply of any kind, and are entirely dependent on shallow wells, rainwater, springs and ponds. There was an acute shortage of water in those areas during the year; in one Rural District the Council had to arrange "to cart water to many parishes where rain and pond supplies failed, for distances varying from one to ten miles." With the extended powers now available under Section 57 of the Local Government Act, 1929, and with the availability of grants from the Unemployment Grants Committee, Rural District Councils have now a unique opportunity to meet the needs of these waterless areas.

I take this opportunity of gratefully acknowledging the personal and helpful interest which the Chairman of the County Council has again taken in the further efforts which have been made to secure some mitigation of the intolerable nuisance which has been and is still being caused by the dumping of London refuse on the northern bank of the Thames. It is now nearly twenty years ago since my predecessor (Dr. John C. Thresh) made his first complete investigation and report on this matter to which detailed reference is made in the body of this Report. The intensive campaign of this year seems to have brought the Country nearer to a solution being found for dealing with this problem, and it is to be hoped that the Ministry of Health will lose no time in acting upon the satisfactory recommendations which have been made in the Report dated May, 1930, by the Departmental Committee on the Public Cleansing of London which was appointed in March, 1929.

I have very great pleasure in recording my appreciation of the confidence and support given to me by the Chairman and Members of the Public Health Committee. To all the Medical Officers of Health and other officials of the local Sanitary Authorities, to the Medical, Dental, Nursing and Clerical Staffs, my best thanks are due for their efficient services. I am especially indebted to my Chief Assistant Medical Officer, Dr. T. P. Puddicombe, for his loyalty and support.

W. A. BULLOUGH,  
County Medical Officer.

Public Health Department,  
Dukè Street, Chelmsford.  
July, 1930.



# **PUBLIC HEALTH AND HOUSING COMMITTEE.**

*Chairman*—Alderman S. W. Robinson.

*Vice-Chairman*—Councillor A. M. Mathews.

## **ALDERMEN—**

H. E. Brooks  
J. H. Burrows  
E. W. Tanner

## **COUNCILLORS—**

Mrs. C. B. Alderton  
P. Astins  
A. Brooks  
Lieut.-Col. E. N. Buxton  
C. W. Daines  
A. G. Giller  
H. Compton Guy  
R. J. Hunt  
W. A. Hurry  
Mrs. J. H. Lester  
J. C. Mead  
J. Parish  
W. T. Potts  
C. S. Richardson  
F. D. Smith  
G. J. Wetton  
Mrs. B. W. Williams  
H. E. Wood  
E. G. Wright  
E. J. Wythes

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## **MEDICAL AND NURSING SERVICES JOINT SUB-COMMITTEE.**

### **ALDERMEN—**

H. E. Brooks  
J. H. Burrows (*Chairman*)  
S. W. Robinson

### **COUNCILLORS—**

A. Brooks  
C. W. Daines  
E. A. Hibbs  
A. M. Mathews  
F. D. Smith  
Mrs. B. W. Williams  
E. J. Wythes

Miss U. B. Chisenhale-Marsh.

TABLE I.

SHOWING RECORD OF RECEIPT OF ANNUAL REPORT FOR 1929 FROM EACH  
LOCAL MEDICAL OFFICER OF HEALTH.

*Urban—*

|                          |                                |                     |
|--------------------------|--------------------------------|---------------------|
| Barking .. ..            | C. L. Williams .. ..           |                     |
| Benfleet .. ..           | J. F. Macdonald (Acting)       | 14th July, 1930     |
| Braintree .. ..          | P. J. Gaffikin .. ..           |                     |
| Brentwood .. ..          | *S. Frazer .. ..               | 3rd July, 1930      |
| Brightlingsea .. ..      | *E. P. Dickin .. ..            | 27th June, 1930     |
| Buckhurst Hill .. ..     | *C. R. Dykes .. ..             | 5th June, 1930      |
| Burnham-on-Crouch .. ..  | *T. D. White .. ..             | 28th June, 1930     |
| Canvey Island .. ..      | N. S. R. Lorraine .. ..        | 1st August, 1930    |
| Chelmsford B. .. ..      | R. H. Vercoe .. ..             | 11th July, 1930     |
| Chingford .. ..          | M. Barker .. ..                | 29th July, 1930     |
| Clacton-on-Sea .. ..     | W. A. Milne .. ..              | 30th July, 1930     |
| Colchester B. .. ..      | W. F. Corfield .. ..           | 6th June, 1930.     |
| Colchester Port .. ..    | *T. C. Brentnall .. ..         | 24th February, 1930 |
| Dagenham .. ..           | E. W. C. Thomas .. ..          | 31st July, 1930     |
| Epping .. ..             | *H. A. Watney .. ..            |                     |
| Frinton-on-Sea .. ..     | *J. A. Maclaren (Acting) .. .. | 16th May, 1930      |
| Grays .. ..              | W. T. G. Boul .. ..            | 22nd August, 1930   |
| Halstead .. ..           | J. S. Ranson .. ..             |                     |
| Harwich B. .. ..         | *G. Ford Porter .. ..          | 29th July, 1930     |
| Harwich Port .. ..       | *G. Ford Porter .. ..          | 1st May, 1930       |
| Hornchurch .. ..         | A. Ball .. ..                  | 4th July, 1930      |
| Ilford B. .. ..          | A. H. G. Burton .. ..          | 26th June, 1930     |
| Leyton B. .. ..          | A. W. Forrest .. ..            | 9th August, 1930    |
| Loughton .. ..           | *A. Butler Harris .. ..        | 5th July, 1930      |
| Maldon B. .. ..          | *H. Reynolds Brown .. ..       | 30th July, 1930     |
| Maldon Port .. ..        | *H. Reynolds Brown .. ..       | 30th July, 1930     |
| Purfleet .. ..           | W. T. G. Boul .. ..            |                     |
| Rayleigh .. ..           | J. F. Macdonald (Acting)       | 14th July, 1930     |
| Romford .. ..            | A. Ball .. ..                  | 7th July, 1930      |
| Saffron Walden B. .. ..  | S. R. Richardson .. ..         | 14th July, 1930     |
| Shoeburyness .. ..       | N. S. R. Lorraine .. ..        | 30th July, 1930     |
| Tilbury .. ..            | W. T. G. Boul .. ..            |                     |
| Waltham Holy Cross .. .. | L. S. Fry .. ..                | 21st May, 1930      |
| Walthamstow B. .. ..     | J. J. Clarke .. ..             |                     |
| Walton-on-the-Naze .. .. | *J. C. Brockwell .. ..         | 6th August, 1930    |
| Wanstead .. ..           | *P. Macgregor .. ..            | 7th June, 1930      |
| West Mersea .. ..        | W. H. Alderton .. ..           | 16th May, 1930      |
| Witham .. ..             | J. S. Bradshaw .. ..           | 28th May, 1930      |
| Wivenhoe .. ..           | *G. T. Kevern .. ..            | 5th May, 1930       |
| Woodford .. ..           | *R. Vere Hodge .. ..           | 7th May, 1930       |



*Rural—*

|                     |    |    |    |                   |    |    |                   |
|---------------------|----|----|----|-------------------|----|----|-------------------|
| Belchamp            | .. | .. | .. | J. S. Ranson      | .. | .. | 7th August, 1930  |
| Billericay          | .. | .. | .. | *J. Douglas Wells | .. | .. |                   |
| Braintree           | .. | .. | .. | P. J. Gaffikin    | .. | .. |                   |
| Bumpstead           | .. | .. | .. | A. Morgan         | .. | .. | 2nd June, 1930    |
| Chelmsford          | .. | .. | .. | J. F. Macdonald   | .. | .. | 30th May, 1930    |
| Dunmow              | .. | .. | .. | P. J. Gaffikin    | .. | .. |                   |
| Epping              | .. | .. | .. | *W. F. Erskine    | .. | .. | 15th July, 1930   |
| Halstead            | .. | .. | .. | J. S. Ranson      | .. | .. | 13th June, 1930   |
| Lexden and Winstree | .. | .. | .. | W. H. Alderton    | .. | .. | 16th June, 1930   |
| Maldon              | .. | .. | .. | J. F. Macdonald   | .. | .. | 29th April, 1930  |
| Ongar               | .. | .. | .. | *A. S. David      | .. | .. |                   |
| Orsett              | .. | .. | .. | W. T. G. Boul     | .. | .. | 22nd August, 1930 |
| Rochford            | .. | .. | .. | J. F. Macdonald   | .. | .. | 28th June, 1930   |
| Romford             | .. | .. | .. | A. Ball           | .. | .. | 2nd July, 1930    |
| Saffron Walden      | .. | .. | .. | S. R. Richardson  | .. | .. |                   |
| Stansted            | .. | .. | .. | R. F. Dunn        | .. | .. | 9th July, 1930    |
| Tendring            | .. | .. | .. | J. Ramsbottom     | .. | .. | 28th July, 1930   |

\* Part-time Medical Officer of Health.

## STAFF.

A detailed list of the Medical and Health Visiting Staff was set out on pages 12—15 of the Report for the year 1928.

The following alterations and additions were made during 1929 :—

(1) **Medical Staff.**

Dr. R. F. Tredre (Brentwood and Billericay District) resigned in June, 1929, and on the 6th May, 1929, Dr. V. Feldman (M.D., D.P.H.) took up duty as Medical Officer of the Harold Court Sanatorium and Tuberculosis Officer of Brentwood and Billericay Districts. On the 13th May, Dr. E. L. Ewan (M.B., Ch.B., B.Hy., D.P.H.) replaced Dr. Ethel U. Vawdrey as School Medical Inspector and Child Welfare Medical Officer, Woodford and Ongar Districts. Dr. L. S. Fry took up duty as Medical Officer of Health, Waltham Holy Cross Urban District, on 24th July, in addition to his County duties in Epping and Waltham Abbey Districts. Dr. G. M. D. Lobban (M.B., Ch.B., D.P.H.) on 23rd September, 1929, replaced Dr. E. W. C. Thomas, Medical Officer of Health, Dagenham, who up to 31st March, 1929, acted as part-time School Medical Inspector in the Dagenham Urban District on behalf of the County Council.

(2) **Orthopaedic Masseuse.**

On the 2nd September, 1929, Miss J. L. Hodge (C.S.M.M.G., T.M.G., M.E.) took up duty as County Orthopaedic Masseuse.

(3) **Health Visitors.**

The following changes took place in the health visiting staff for the reasons stated :—

| Name.             | Qualifications.                         | Date commenced duty. | District and Duties.                                                                                                          | Reason for change.      |
|-------------------|-----------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| M. W. Thomas      | .. H.V. Cert., G.N.T. and Cert. Midwife | 2-10-29 ..           | Dunmow (H.V., S.N., T.N.)                                                                                                     | Vacancy.                |
| D. M. Ives ..     | .. H.V. Cert., G.N.T. and Cert. Midwife | 23-10-29 ..          | Thaxted (H.V., S.N., T.N.)                                                                                                    | Vacancy.                |
| R. A. Brown       | .. H.V. Cert., G.N.T. and Cert. Midwife | 5-9-29 ..            | Maldon and Burnham (H.V., S.N., T.N.)                                                                                         | Vacancy.                |
| T. E. Bowman      | .. Cert. Midwife, Nursing Cert.         | 14-10-29 ..          | Leyton (T.N.)                                                                                                                 | Vacancy.                |
| A. Ames ..        | .. G.N.T. and Cert. Midwife             | 28-10-29 ..          | Walthamstow (T.N.)                                                                                                            | Vacancy.                |
| E. M. Brocklebank | .. Nursing experience ..                | 8-4-29 ..            | Ilford (T.N.) ..                                                                                                              | Additional appointment. |
| E. L. Lunn        | .. G.N.T. ..                            | 8-4-29               | Whole-time School Nurses, Dagenham, to replace three combined part-time Nurses employed as Health Visitors by Dagenham U.D.C. |                         |
| E. Thurtle        | .. G.N.T. and Cert. Midwife             | 27-5-29              |                                                                                                                               |                         |
| M. Murphy         | .. G.N.T. and Cert. Midwife             | 27-5-29              |                                                                                                                               |                         |
| K. M. Hinde       | .. H.V. Cert. and Cert. Midwife         | 3-12-29 ..           | Tilbury (S.N., T.N.)                                                                                                          | Vacancy.                |
| M. A. Davies      | .. G.N.T. and Cert. Midwife             | 17-8-29 ..           | Clacton (S.N., T.N.) (part-time).                                                                                             | Vacancy.                |

G.N.T. = Three years general training certificate.



## PART I.

## ACREAGE AND POPULATION.

There has been no change in the area of the Administrative County during the year, which remains at 964,443 acres.

In Table XXVII. Part IV., is given a list of the Sanitary Districts in the Administrative County showing the area of each district. From this table it will be noted that during the year 1929, the following new Urban districts have been constituted :—

| Sanitary District. | Date Constituted.    | Estimated Population,<br>December 31st, 1929.<br>(Registrar-General's figures). | Acreage. |
|--------------------|----------------------|---------------------------------------------------------------------------------|----------|
| Benfleet U. ..     | 1st October, 1929 .. | 11,900 ..                                                                       | 6,319    |
| Purfleet U. ..     | 1st April, 1929 ..   | 9,141 ..                                                                        | 8,899    |
| Rayleigh U. ..     | 1st October, 1929 .. | 5,840 ..                                                                        | 5,278    |

Suitable adjustments have been made in the Orsett and Rochford Rural Districts from which the above sanitary districts have been taken.

For the year 1929, the Registrar-General has again provided two estimated populations for the Administrative County, as follows :—

- (a) For calculating birth rate, the figure which includes  
civilian and military population is .. .. 1,115,570
- (b) For calculating the death rate, the figure which includes  
only civilian population is .. .. 1,110,400

The table below compares the population of the Administrative County of Essex at the date of the Census of 1921 with the estimated figure for the year 1929, and it will be noted that the population has now increased by 21.2 per cent. since the date of the census :—

TABLE II.

|                            | Area<br>in Acres,<br>1921. | Population.     |                                |                        | Persons<br>per acre.               | Acres per<br>person. |
|----------------------------|----------------------------|-----------------|--------------------------------|------------------------|------------------------------------|----------------------|
|                            |                            | Census<br>1921. | Estimated<br>Population, 1929. |                        |                                    |                      |
|                            |                            |                 | For<br>Birth-<br>rate.         | For<br>Death-<br>rate. | (Calculated on<br>Census figures). |                      |
| Municipal Boroughs (8) ... | 41,949                     | 432,691         | 466,008                        | 462,278                | 10.31                              | 0.09                 |
| Urban Districts (29) ...   | 101,553                    | 255,056         | 366,362                        | 365,472                | 2.50                               | 0.39                 |
| Rural ,, (17) ...          | 820,941                    | 232,394         | 283,200                        | 282,650                | 0.28                               | 3.53                 |
|                            | 964,443                    | 920,141         | 1,115,570                      | 1,110,400              | 0.95                               | 1.05                 |

This increase has chiefly taken place in the southern portion of the County adjacent to London, where extensive housing developments are taking place.

It will also be noted from this table that with the grant of a charter on 11th October, 1929, to the Walthamstow Urban District there are now 8 Municipal Boroughs, 29 Urban and 17 Rural Districts in the Administrative County.



## VITAL STATISTICS.

### Birth-rate.

Of the 18,218 births registered in the Administrative County, 9,362 were of males and 8,856 females. The birth rate is therefore 16.3 per thousand population which is exactly the same as for 1928.

Included in the above figures are 543 illegitimate births (278 males and 265 females), and this number is equivalent to 2.98 per cent. of the total births. The illegitimate infant mortality rate per 1,000 births is 103, compared with the legitimate infant mortality rate of 52 per 1,000 births.

The following statement compares the birth-rate in the Administrative County with that for England and Wales during the past five years :—

| Year. | Administrative County. |      | England and Wales. |      |
|-------|------------------------|------|--------------------|------|
| 1925  | ..                     | 17.1 | ..                 | 18.3 |
| 1926  | ..                     | 16.8 | ..                 | 17.8 |
| 1927  | ..                     | 16.2 | ..                 | 16.7 |
| 1928  | ..                     | 16.3 | ..                 | 16.7 |
| 1929  | ..                     | 16.3 | ..                 | 16.3 |

The abnormally high birth-rate in Dagenham emphasises in a very marked manner the result of the preference given by the London County Council, when selecting tenants for their Becontree Housing Estate, to young couples with growing families. The census taken by the Education Committee in September, 1929, revealed the presence of a school population nearly 50 per cent in excess of the average. The high birth-rate indicates very clearly that the provision of school accommodation in Dagenham will have to be made for many years to come on a much higher ratio in proportion to total population than is necessary in a community of normal composition and growth.

### Death-rate.

There were 12,449 deaths registered in the Administrative County during the year 1929 (6,296 males and 6,153 females), the death-rate being 11.2 per cent. population. Comparable figures for the year 1928 were 10,866 deaths (5,646 males and 5,220 females) and death-rate of 10.0 per 1,000 population.

The following is a comparison of the death-rate in Essex with that for England and Wales during the past five years :—

| Year. | Administrative County. |      | England and Wales. |      |
|-------|------------------------|------|--------------------|------|
| 1925  | ..                     | 10.3 | ..                 | 12.2 |
| 1926  | ..                     | 9.9  | ..                 | 11.6 |
| 1927  | ..                     | 10.8 | ..                 | 12.3 |
| 1928  | ..                     | 10.0 | ..                 | 11.7 |
| 1929  | ..                     | 11.2 | ..                 | 13.4 |

The death-rate for 1929, namely, 11.2 per 1,000 population, is the highest recorded in the Administrative County since 1919 (11.6) and can be chiefly attributed to the increased mortality from Influenza, Heart Disease, &c., and Diseases of the Respiratory System, in the first quarter of the year, partly due to the very severe winter. Comparison of the chief causes of death during the past three years is given below :—



|                                                                   | 1929. | 1928. | 1927. |
|-------------------------------------------------------------------|-------|-------|-------|
| Heart Disease, Cerebral Haemorrhage and Arterio-Sclerosis .. .. . | 3,420 | 3,049 | 2,798 |
| Cancer, Malignant Disease .. .. .                                 | 1,511 | 1,505 | 1,448 |
| Disease of the Respiratory System .. .. .                         | 1,753 | 1,207 | 1,494 |
| Tuberculous Diseases .. .. .                                      | 849   | 812   | 823   |
| Influenza .. .. .                                                 | 546   | 132   | 515   |
| Congenital Diseases .. .. .                                       | 470   | 436   | 404   |

The effect of the higher death-rate for 1929 has not interfered with the fall during the past 20 years as shewn in the following table :—

| Year.        | Mean Population. | Mean Annual No. of Deaths. | Mean Annual Death-rate. |
|--------------|------------------|----------------------------|-------------------------|
| 1910-1914 .. | 1,068,523        | 11,642                     | 10.9                    |
| 1915-1919 .. | 825,254          | 10,652                     | 12.9                    |
| 1920-1924 .. | 918,515          | 9,658                      | 10.5                    |
| 1925-1929 .. | 1,033,840        | 10,831                     | 10.4                    |

### Infant Mortality.

The deaths of infants under one year of age numbered 970, comprising 569 males and 401 females, the infant mortality rate per 1,000 births being 53. Of the total deaths of infants under one year of age 56 were of illegitimate infants, and the rate of deaths of these children per 1,000 births is 103, which is nearly double that for legitimate infants. In the following table the infant mortality rate in the Administrative County is compared with that of England and Wales for the past 10 years :—

**TABLE III.**

| Year.        | Administrative County. |                             |                        | England and Wales.     |
|--------------|------------------------|-----------------------------|------------------------|------------------------|
|              | Births.                | Deaths under 1 year of age. | Rate per 1,000 Births. | Rate per 1,000 Births. |
| 1920 .. .. . | 21082                  | 1242                        | 59                     | 80                     |
| 1921 .. .. . | 18298                  | 1089                        | 59                     | 83                     |
| 1922 .. .. . | 17179                  | 954                         | 55                     | 77                     |
| 1923 .. .. . | 17330                  | 794                         | 46                     | 69                     |
| 1924 .. .. . | 16218                  | 846                         | 52                     | 75                     |
| 1925 .. .. . | 16516                  | 859                         | 52                     | 75                     |
| 1926 .. .. . | 16743                  | 877                         | 52                     | 70                     |
| 1927 .. .. . | 16661                  | 851                         | 51                     | 69                     |
| 1928 .. .. . | 17758                  | 914                         | 51                     | 65                     |
| 1929 .. .. . | 18218                  | 970                         | 53                     | 74                     |

It will be noted from the above table that there has been an increase of two in the infant mortality rate for the past year compared with the rate for 1928, but the increase is shared by the country generally and is chiefly due to the increased mortality from Influenza, Whooping Cough and Pneumonia.

The number of deaths from diarrhoea under two years of age was 109 as compared with 99 in 1928.



TABLE IV.

SHOWING THE BIRTH-RATE, DEATH-RATE AND INFANT MORTALITY FOR THE YEAR 1929 AND THE AVERAGE FOR THE 5 YEARS 1924-28.

| SANITARY DISTRICTS.     | Birth-rate. |          | Death-rate. |          | Infantile Mortality. |                  |                    |                       |
|-------------------------|-------------|----------|-------------|----------|----------------------|------------------|--------------------|-----------------------|
|                         | 1929.       | 1924-28. | 1929.       | 1924-28. | 1929.                | 1929.            |                    | 1924-28<br>(Average). |
|                         |             |          |             |          |                      | Legiti-<br>mate. | Illegiti-<br>mate. |                       |
| URBAN—                  |             |          |             |          |                      |                  |                    |                       |
| Barking ...             | 18.7        | 20.4     | 10.3        | 9.9      | 53                   | 48               | 357                | 71                    |
| Benfleet ...            | 12.4        | ...      | 13.4        | ...      | 81                   | 81               | ...                | ...                   |
| Braintree ...           | 15.4        | 16.5     | 13.1        | 12.6     | 91                   | 86               | 250                | 24                    |
| Brentwood ...           | 12.3        | 13.1     | 10.2        | 10.0     | 43                   | 45               | ...                | 45                    |
| Brightlingsea ...       | 10.6        | 12.3     | 15.6        | 13.0     | 87                   | 89               | ...                | 28                    |
| Buckhurst Hill ...      | 11.6        | 15.5     | 12.4        | 10.3     | 31                   | 32               | ...                | 58                    |
| Burnham-on-Crouch ...   | 13.0        | 14.1     | 11.6        | 13.6     | 64                   | 44               | 1000               | 33                    |
| Canvey Island ...       | 7.2         | 9.0      | 5.9         | 5.2      | 130                  | 136              | ...                | 84                    |
| Chelmsford B. ...       | 16.2        | 15.5     | 11.5        | 10.0     | 70                   | 72               | ...                | 45                    |
| Chingford ...           | 20.3        | 18.4     | 8.7         | 8.7      | 27                   | 28               | ...                | 42                    |
| Clacton-on-Sea ...      | 11.5        | 11.6     | 11.3        | 9.8      | 28                   | 30               | ...                | 45                    |
| Colchester B. ...       | 14.3        | 16.1     | 12.1        | 10.6     | 26                   | 26               | 33                 | 50                    |
| Dagenham ...            | 30.1        | 30.5     | 8.3         | 8.7      | 68                   | 64               | 270                | 76                    |
| Epping ...              | 15.0        | 13.5     | 12.2        | 11.8     | 50                   | 52               | ...                | 55                    |
| Frinton-on-Sea ...      | 6.6         | 8.6      | 11.0        | 7.6      | 67                   | 67               | ...                | 48                    |
| Grays ...               | 16.6        | 18.2     | 10.0        | 9.6      | 65                   | 67               | ...                | 49                    |
| Halstead ...            | 11.2        | 14.2     | 15.3        | 14.1     | 61                   | 46               | 1000               | 45                    |
| Harwich B. ...          | 17.8        | 18.8     | 10.9        | 10.5     | 37                   | 39               | ...                | 52                    |
| Hornchurch ...          | 17.0        | 16.2     | 10.0        | 9.5      | 40                   | 41               | ...                | 54                    |
| Ilford B. ...           | 15.1        | 15.4     | 9.4         | 8.9      | 49                   | 48               | 100                | 46                    |
| Leyton B. ...           | 13.5        | 15.1     | 11.8        | 10.0     | 58                   | 56               | 122                | 53                    |
| Loughton ...            | 16.5        | 14.8     | 8.7         | 8.0      | 51                   | 45               | 167                | 29                    |
| Maldon B. ...           | 14.5        | 14.4     | 14.1        | 12.4     | 31                   | 34               | ...                | 53                    |
| Purfleet ...            | 17.2        | ...      | 7.9         | ...      | 34                   | 26               | 200                | ...                   |
| Rayleigh ...            | 14.4        | ...      | 17.1        | ...      | 143                  | 95               | ...                | ...                   |
| Romford ...             | 19.6        | 16.9     | 11.4        | 11.5     | 53                   | 50               | 150                | 56                    |
| Saffron Walden B. ...   | 13.1        | 12.9     | 14.3        | 14.0     | 13                   | 14               | ...                | 70                    |
| Shoeburyness ...        | 17.8        | 22.4     | 11.1        | 10.0     | 17                   | 9                | 166                | 45                    |
| Tilbury ...             | 22.7        | 23.7     | 9.4         | 8.4      | 49                   | 49               | 53                 | 67                    |
| Waltham Holy Cross ...  | 12.4        | 14.9     | 13.3        | 10.2     | 93                   | 98               | ...                | 56                    |
| Walthamstow B. ...      | 15.5        | 17.1     | 11.6        | 10.1     | 53                   | 53               | 83                 | 53                    |
| Walton-on-the-Naze ...  | 11.2        | 12.4     | 10.9        | 10.9     | 28                   | 29               | ...                | 48                    |
| Wanstead ...            | 10.6        | 11.6     | 10.9        | 9.8      | 37                   | 37               | ...                | 46                    |
| West Mersea ...         | 10.7        | 13.3     | 12.1        | 10.6     | 42                   | 42               | ...                | 63                    |
| Witham ...              | 14.7        | 15.9     | 10.3        | 9.4      | 78                   | 65               | 333                | 46                    |
| Wivenhoe ...            | 12.1        | 13.6     | 12.1        | 14.0     | 36                   | 37               | ...                | 33                    |
| Woodford ...            | 14.7        | 14.1     | 11.9        | 9.6      | 45                   | 46               | ...                | 37                    |
| Total Urban ...         | 16.6        | 16.6     | 10.8        | 9.9      | 53                   | 52               | 110                | 53                    |
| RURAL                   |             |          |             |          |                      |                  |                    |                       |
| Belchamp ...            | 11.5        | 16.0     | 15.4        | 13.9     | 85                   | 70               | 250                | 47                    |
| Billericay ...          | 15.5        | 16.4     | 10.9        | 10.6     | 68                   | 70               | ...                | 53                    |
| Braintree ...           | 14.9        | 14.6     | 12.9        | 12.2     | 52                   | 53               | ...                | 33                    |
| Bumpstead ...           | 13.8        | 17.4     | 14.7        | 16.2     | 94                   | 97               | ...                | 61                    |
| Chelmsford ...          | 16.6        | 16.4     | 12.1        | 10.7     | 46                   | 48               | ...                | 39                    |
| Dunmow ...              | 15.7        | 14.4     | 14.3        | 13.1     | 70                   | 66               | 125                | 45                    |
| Epping ...              | 14.7        | 14.9     | 12.0        | 11.1     | 48                   | 50               | ...                | 42                    |
| Halstead ...            | 12.8        | 13.3     | 13.9        | 12.4     | 23                   | 24               | ...                | 45                    |
| Lexden and Winstree ... | 16.3        | 15.5     | 14.8        | 12.0     | 43                   | 37               | 286                | 45                    |
| Maldon ...              | 13.7        | 14.5     | 13.6        | 11.7     | 52                   | 50               | 111                | 47                    |
| Ongar ...               | 18.7        | 18.7     | 12.5        | 11.3     | 51                   | 54               | ...                | 54                    |
| Orsett ...              | 16.5        | 18.0     | 11.0        | 9.2      | 63                   | 55               | 333                | 45                    |
| Rochford ...            | 17.2        | 18.8     | 11.5        | 11.3     | 33                   | 24               | 263                | 54                    |
| Romford ...             | 15.0        | 22.6     | 8.4         | 10.1     | 47                   | 49               | ...                | 67                    |
| Saffron Walden ...      | 14.2        | 14.9     | 16.0        | 13.8     | 58                   | 63               | ...                | 59                    |
| Stansted ...            | 15.0        | 14.9     | 15.8        | 12.1     | 68                   | 62               | 143                | 27                    |
| Tendring ...            | 15.4        | 17.0     | 12.0        | 11.6     | 57                   | 57               | 59                 | 41                    |
| Totals—                 |             |          |             |          |                      |                  |                    |                       |
| Rural ...               | 16.5        | 16.9     | 15.6        | 11.4     | 53                   | 51               | 88                 | 49                    |
| Urban ...               | 16.6        | 16.6     | 10.8        | 9.9      | 53                   | 52               | 110                | 53                    |
| Adminis. County ...     | 16.3        | 16.7     | 11.2        | 10.3     | 53                   | 52               | 103                | 52                    |

\* An illegitimate child born in 1928 died within a year of its birth. There were no illegitimate births during the period 1st October to 31st December, 1929.



**Cancer.**

The following table shows the number of deaths registered as being due to cancer, malignant disease, in the Administrative County, and also in England and Wales during the past five years :—

**TABLE V.**  
SHOWING DEATHS AND DEATH-RATES FROM CANCER.

| Year. | Administrative County. |                            | England and Wales. |                            |
|-------|------------------------|----------------------------|--------------------|----------------------------|
|       | Deaths.                | Rate per 1,000 population. | Deaths.            | Rate per 1,000 population. |
| 1925  | 1301                   | 1·35                       | 51939              | 1·33                       |
| 1926  | 1363                   | 1·37                       | 53220              | 1·36                       |
| 1927  | 1448                   | 1·41                       | 54078              | 1·38                       |
| 1928  | 1505                   | 1·39                       | 56253              | 1·42                       |
| 1929  | 1511                   | 1·36                       | Not available.     | Not available.             |

**NOTIFICATION OF INFECTIOUS DISEASES.**

The usual summary of infectious diseases notified in the various Sanitary Districts during 1929 is given in Table XXIX. of Part IV. of the Report, together with the attack rates per thousand population.

Excluding 1,388\* notifications of Tuberculosis, it will be noted that there were 8,484 cases of infectious diseases notified, the attack rate being 8.9 per thousand population. Comparative figures for 1928 were 7,923 cases and an attack rate of 7.3 per thousand population.

**Scarlet Fever.**

The number of notifications received was 3,945, practically the same as for 1928, 3,934. The attack rate was 3.55 per thousand population as against 3.61 in 1928. The number of deaths registered was 21, the case mortality rate per cent. being 0.30 as against 15 deaths for 1928 and a case mortality rate of 0.38.

**Diphtheria.**

Notifications of this disease increased from 2,034 in 1928 to 2,195 for the year under review. The deaths numbered 106 in 1928 (case mortality rate per cent. 5.21) and 122 in 1929, the case mortality rate being 5.56.

The County Council continued the facilities under the bacteriological scheme, for enabling virulence tests to be carried out in order to help in tracing "carriers."

Diphtheria was especially prevalent in the Romford (217) Grays (88) and Tilbury (118) areas.

\*Includes 31 new cases coming to the notice of the local Medical Officer's of Health otherwise than by formal notification.



## Enteric Fever.

There was a remarkable drop in the number of notifications received, viz., 69, compared with 190 in 1928 and 108 in 1927. The highest number of cases occurred in the Colchester (13) and Ilford (12) Boroughs. 12 deaths were recorded (case mortality rate per cent. 17.4) compared with 32 in 1928, when the case mortality per cent. was 16.8.

## Smallpox.

Smallpox of the mild type increased in prevalence during 1929, the number of cases notified being 69, compared with 17 in the previous year. The districts affected were Barking (10), Canvey Island (1), Dagenham (3), Grays (4), Ilford (6), Leyton (9), Romford U. (1), Tilbury (12), Walthamstow (10), Wanstead (2), Billericay (1), Chelmsford R. (2), Maldon R. (4), and Rochford (4). There were again no deaths reported as due to the disease.

The County Health Department collaborated with the Medical Officers of Health of London and neighbouring Counties and County Boroughs as well as with the District Medical Officers of Health in regard to the circulation of information of new cases and 'contacts' affecting their areas.

The arrangements which had previously been made by the London County Council whereby the services of their smallpox expert, Dr. H. McConnell Wanklyn, were available for Essex, terminated in May, 1929, owing to the death of Dr. Wanklyn. The assistance which he had rendered to District Medical Officers of Health in the County in the diagnosis of suspected cases of smallpox during the past nine years was of great value and by his death, Essex has suffered a severe loss.

In the circumstances advantage has been taken by the medical staff of the Essex County Council of opportunities recently presented to familiarise themselves with the clinical features of smallpox, and any assistance which they can render in the matter of diagnosis is placed at the disposal of the District Medical Officers of Health in the County.

**VACCINATION.** In view of the continued prevalence of smallpox in various parts of the country and of the recommendations of the Departmental Committee on Vaccination (see my Annual Report for 1928, page 25) the Ministry of Health in August issued a Vaccination Order, 1929, which amended the existing orders in a number of important directions, chiefly in connection with the number of insertions, the abolition of cross scarification, the recommendation of re-vaccination of children between five and seven years of age and again after the age of 14 years, and the issue of instructions to Public Vaccinators to afford medical treatment to any children requiring it in consequence of vaccination.

The coming into force of the Local Government Act, 1929, and the transfer of functions relating to vaccination to County and County Borough Councils should lead to further improvements in the co-ordination of preventive measures against the spread of smallpox as well as other infectious diseases.



SMALLPOX HOSPITAL ACCOMMODATION. During the year 1929, the smallpox hospital accommodation was utilised in accordance with the following statement in order to cope with the 69 cases notified. The Walthamstow Urban District Council in September, 1929, opened a smallpox hospital at Low Hall Farm, Walthamstow, to which all the ten patients notified in this area were sent for treatment.

| Sanitary District.  | No. of Cases. |    | Smallpox Hospital to which admitted. |                                |
|---------------------|---------------|----|--------------------------------------|--------------------------------|
| Leyton B. ..        | ..            | 9  | ..                                   | Orsett Hospital.               |
| Ilford B. ..        | ..            | 6  | ..                                   | " "                            |
| Grays U. ..         | ..            | 4  | ..                                   | " "                            |
| Tilbury U. ..       | ..            | 12 | ..                                   | " "                            |
| Barking U. ..       | ..            | 10 | ..                                   | " "                            |
| Wanstead U. ..      | ..            | 2  | ..                                   | " "                            |
| Billericay R. ..    | ..            | 1  | ..                                   | " "                            |
| Romford U. ..       | ..            | 1  | ..                                   | " "                            |
| Dagenham U. ..      | ..            | 3  | ..                                   | " "                            |
| Chelmsford R. ..    | ..            | 1  | ..                                   | M.A.B. Hospital (South Wharf). |
| Chelmsford R. ..    | ..            | 1  | ..                                   | Chelmsford Hospital.           |
| Maldon R. ..        | ..            | 4  | ..                                   | Maldon Hospital.               |
| Walthamstow B. ..   | ..            | 10 | ..                                   | Walthamstow Hospital.          |
| Rochford R. ..      | ..            | 4  | ..                                   | Rochford Hospital.             |
| Canvey Island U. .. | ..            | 1  | ..                                   | " "                            |
| Total ..            |               | 69 |                                      |                                |

### ISOLATION HOSPITALS.

Fourteen Isolation Hospitals in the Administrative County applied for the usual grants under the conditions laid down by the County Council, full particulars of which were set out in my Annual Report for the year 1925.

The annual inspection of the hospitals showed that on the whole the buildings were in a fair state of repair, but suggestions made led to improvements being effected in regard to washing and bathing accommodation, disinfection, sewage disposal, heating and general renovations. It was noted that at one of the institutions wireless receiving apparatus had been installed in the wards.

Table VI. showing the accommodation, number of cases treated, cost per patient per week, &c., again forms a useful illustration of the high cost of maintaining small hospitals which are only occupied by a few patients during the year. The advisability of "pooling" the accommodation for the County and arranging the admissions and discharges from the various districts by an improved motor ambulance service has already been suggested in my previous Annual Reports.



Applications have been made to the Ministry of Health for sanction to undertake extensions at several of the Institutions, but having regard to Section 63, of the Local Government Act, 1929, it would appear advisable to carefully consider each application for extension of an existing Isolation Hospital. Full particulars of a report, which is being prepared under Section 63 of the Local Government Act, 1929, will be included in my Annual Report for the year 1930.

During the year ended March, 1929, grants in respect to beds provided out of revenue were made to the following hospitals; Colchester 40 beds, Halstead 4 beds, Orsett 48 beds.

## VENEREAL DISEASES.

### Scheme.

The arrangements made under the London and Home Counties Scheme for the treatment of venereal diseases whereby Essex patients can attend the V.D. Clinics established at or in connection with any of the principal London Hospitals, were continued during 1929 and proved exceedingly useful, particularly to the large population residing in the extra-Metropolitan Districts.

The scheme has been developed by extending the number of all-day clinics at certain of the hospitals with a consequent improvement in the treatment and a much smaller proportion of defaulters (*i.e.*, about 5 or 6 per cent. instead of about 20 per cent.)

With the growth of the population in Dagenham and in Leyton and Walthamstow, the need for increased facilities in these areas, particularly in regard to evening sessions, has become more pronounced. Negotiations in several directions with the object of establishing a clinic accessible to patients from these areas have so far proved unsuccessful, but with the changes brought about in Local Government administration by the Local Government Act 1929, it is hoped to overcome the difficulties which have so far prevented the establishment of such a clinic.

The agreements with the Essex County Hospital, Colchester, and the Chelmsford and Essex Hospital, Chelmsford, in connection with the V.D. Clinics established at these institutions were continued as were the arrangements for Essex patients to receive advice and treatment at the Southend Borough Sanatorium, the East Suffolk Hospital Ipswich, and the ad hoc Clinic established by the Kent County Council at Gravesend.

Details of the number of patients receiving treatment under the Venereal Diseases Scheme are set out in Table VII. on page 19.

During the financial year ended 31st March, 1930, the County Council expended the sum of £38 8s. 1d. in travelling expenses incurred by necessitous patients to and from V.D. Clinics.



**TABLE VI.**  
**Shewing Accommodation, Number of Cases treated, Cost per Bed, etc., at those Isolation Hospitals for which Grants for Beds provided out of Loan were recommended**  
**for the Year ended 31st March, 1929.**

|                                    | Billerica. | Chelmsford. | Clacton.  | Colchester. | Dunmow.  | Grays and Orsett. | Halstead.  | Ilford.    | Malden.  | Rochford. | Romford.   | Saffron Walden. | Walthamstow. | Waltham Joint. | TOTAL.      |
|------------------------------------|------------|-------------|-----------|-------------|----------|-------------------|------------|------------|----------|-----------|------------|-----------------|--------------|----------------|-------------|
| Number for purpose of Grant ...    | 22         | 21          | 17        | 58          | 8        | 40                | 16         | 110        | 10       | 12        | 52         | 14              | 91           | 42             | 513         |
| Grant from County Council ...      | £120       | £115        | £85       | £300        | £50      | £210              | £90        | £560       | £60      | £70       | £270       | £80             | £465         | £220           | £2695       |
| <i>Cases treated during year:—</i> |            |             |           |             |          |                   |            |            |          |           |            |                 |              |                |             |
| Scarlet Fever ...                  | 112        | 90          | 30        | 149         | 35       | 22                | 53         | 363        | 73       | 63        | 305        | 52              | 544          | 151            | 2042        |
| Diphtheria ...                     | 26         | 97          | 5         | 30          | 1        | 283               | 19         | 190        | 36       | 30        | 321        | 36              | 256          | 40             | 1370        |
| Typhoid ...                        | 4          | 4           | 2         | 6           | —        | —                 | —          | 16         | 4        | 3         | —          | —               | —            | 1              | 40          |
| Other Diseases ...                 | 13         | 8           | —         | 112         | 1        | 7                 | 1          | 22         | 2        | 2         | —          | —               | —            | —              | 174         |
| Total number of cases treated      | 155        | 199         | 37        | 297         | 37       | 312               | 73         | 591        | 115      | 98        | 632        | 88              | 800          | 192            | 3626        |
| Bed-Days ...                       | 5585       | 7685        | 1225      | 15182       | 1427     | 21151             | 2545       | 28978      | 3467     | 3523      | 25774      | 3308            | 38528        | 6940           | 163518      |
| <i>Expenditure for the year:—</i>  | £ s. d.    | £ s. d.     | £ s. d.   | £ s. d.     | £ s. d.  | £ s. d.           | £ s. d.    | £ s. d.    | £ s. d.  | £ s. d.   | £ s. d.    | £ s. d.         | £ s. d.      | £ s. d.        | £ s. d.     |
| Repayment of Loans...              | 164 18 1   | 224 19 9    | 151 8 6   | 141 2 3     | 15 0 2   | 1770 8 6          | 64 0 0     | 1410 4 10  | 260 0 8  | 144 0 0   | 984 19 7   | 108 0 0         | 1104 14 1    | 456 13 4       | 7000 9 9    |
| Interest on loan ...               | 124 5 11   | 75 9 0      | 19 16 8   | 88 17 3     | 2 18 10  | 1060 4 5          | 50 4 5     | 1572 11 3  | 37 15 8  | 13 17 1   | 539 15 3   | 70 7 3          | 123 8 9      | 83 13 10       | 3861 5 7    |
| Total ...                          | £ 289 4 0  | 300 8 9     | 171 5 2   | 227 19 6    | 17 19 0  | 2830 12 11        | 114 4 5    | 2982 16 1  | 297 16 4 | 157 17 1  | 1524 14 10 | 178 7 3         | 1228 2 10    | 540 7 2        | 10861 15 4  |
| Structural Repairs ...             | —          | 232 12 8    | 129 7 5   | 390 3 3     | 4 0 6    | 1321 12 11        | 214 14 10  | 1191 15 11 | 297 3 1  | 36 18 6   | 639 8 2    | 68 11 8         | 750 10 5     | 51 8 3         | 5328 9 7    |
| Food (Patient and Staff) ...       | 2248 17 8  | 412 0 11    | 259 8 0   | 1216 10 11  | 152 1 2  | 1955 4 8          | 274 16 5   | 3771 15 2  | 627 19 7 | 436 5 7   | 2324 5 9   | 395 15 3        | 4851 4 8     | 541 2 3        | 19467 11 0  |
| Estab. and Patients' Expenses ...  | 612 18 4   | 1929 9 4    | 674 7 3   | 4531 2 6    | 727 18 8 | 4084 8 2          | 1137 13 10 | 14189 3 11 | 1456 2 7 | 1010 0 4  | 5532 11 0  | 534 16 0        | 10788 17 7   | 2876 1 5       | 50135 10 11 |
| Maintenance...                     | 2861 16 0  | 2574 2 11   | 1063 2 8  | 6187 18 8   | 8 4 0 4  | 7391 5 9          | 10 7 5 1   | 10152 15 0 | 2381 5 3 | 1483 7 5  | 8496 4 11  | 999 2 11        | 16390 12 8   | 3468 11 11     | 74931 11 6  |
| Overhead Charges ...               | 289 4 0    | 300 8 9     | 171 5 2   | 227 19 6    | 17 19 0  | 2830 12 11        | 114 4 5    | 2982 16 1  | 297 16 4 | 157 17 1  | 1524 14 10 | 178 7 3         | 1228 2 10    | 540 7 2        | 10861 15 4  |
| Total ...                          | £ 3151 0 0 | 2874 11 8   | 1234 7 10 | 6413 18 2   | 901 19 4 | 10191 18 8        | 1741 9 6   | 22135 11 1 | 2679 1 7 | 1641 4 6  | 10020 19 9 | 1177 10 2       | 17618 15 6   | 4008 19 1      | 85793 6 10  |
| Cost per patient per week ...      | 3 19 0     | 2 12 4      | 7 1 1     | 2 19 2      | 4 8 6    | 3 7 5             | 4 15 9     | 5 6 11     | 5 8 2    | 3 5 3     | 2 14 5     | 2 9 10          | 3 4 0        | 4 0 10         | 3 12 8      |
| Food, Struct. and Estab. Ex. ...   | 3 11 9     | 2 6 10      | 6 1 5     | 2 17 1      | 4 6 8    | 2 8 9             | 4 9 6      | 4 12 6     | 4 16 2   | 2 18 11   | 2 6 2      | 2 2 3           | 2 19 6       | 3 10 0         | 3 3 5       |
| Cost per case treated, 1928-29 ... | 20 6 7     | 14 8 11     | 33 7 3    | 21 12 1     | 24 7 7   | 32 13 4           | 23 17 1    | 37 9 1     | 23 5 11  | 16 14 11  | 15 17 1    | 13 7 7          | 22 0 6       | 20 17 7        | 23 13 2     |
| “ “ year 1927-28 ...               | 30 10 5    | 13 2 2      | 40 8 8    | 34 19 8     | 38 0 4   | 15 16 6           | 17 7 3     | 35 4 7     | 24 5 7   | 22 0 1    | 14 18 7    | 52 8 9          | 21 16 4      | 23 3 0         | 22 9 6      |

# Showing Amounts of Money Received for

| Date | Particulars | Amount |   | Total  |   |
|------|-------------|--------|---|--------|---|
|      |             | £      | s | £      | s |
| 1890 | Jan 1       | 100    | 0 | 100    | 0 |
|      | Feb 1       | 50     | 0 | 150    | 0 |
|      | Mar 1       | 25     | 0 | 175    | 0 |
|      | Apr 1       | 10     | 0 | 185    | 0 |
|      | May 1       | 5      | 0 | 190    | 0 |
|      | Jun 1       | 10     | 0 | 200    | 0 |
|      | Jul 1       | 15     | 0 | 215    | 0 |
|      | Aug 1       | 20     | 0 | 235    | 0 |
|      | Sep 1       | 25     | 0 | 260    | 0 |
|      | Oct 1       | 30     | 0 | 290    | 0 |
|      | Nov 1       | 35     | 0 | 325    | 0 |
|      | Dec 1       | 40     | 0 | 365    | 0 |
| 1891 | Jan 1       | 45     | 0 | 410    | 0 |
|      | Feb 1       | 50     | 0 | 460    | 0 |
|      | Mar 1       | 55     | 0 | 515    | 0 |
|      | Apr 1       | 60     | 0 | 575    | 0 |
|      | May 1       | 65     | 0 | 640    | 0 |
|      | Jun 1       | 70     | 0 | 710    | 0 |
|      | Jul 1       | 75     | 0 | 785    | 0 |
|      | Aug 1       | 80     | 0 | 865    | 0 |
|      | Sep 1       | 85     | 0 | 950    | 0 |
|      | Oct 1       | 90     | 0 | 1040   | 0 |
|      | Nov 1       | 95     | 0 | 1135   | 0 |
|      | Dec 1       | 100    | 0 | 1235   | 0 |
| 1892 | Jan 1       | 105    | 0 | 1340   | 0 |
|      | Feb 1       | 110    | 0 | 1450   | 0 |
|      | Mar 1       | 115    | 0 | 1565   | 0 |
|      | Apr 1       | 120    | 0 | 1685   | 0 |
|      | May 1       | 125    | 0 | 1810   | 0 |
|      | Jun 1       | 130    | 0 | 1940   | 0 |
|      | Jul 1       | 135    | 0 | 2075   | 0 |
|      | Aug 1       | 140    | 0 | 2215   | 0 |
|      | Sep 1       | 145    | 0 | 2360   | 0 |
|      | Oct 1       | 150    | 0 | 2510   | 0 |
|      | Nov 1       | 155    | 0 | 2665   | 0 |
|      | Dec 1       | 160    | 0 | 2825   | 0 |
| 1893 | Jan 1       | 165    | 0 | 2990   | 0 |
|      | Feb 1       | 170    | 0 | 3160   | 0 |
|      | Mar 1       | 175    | 0 | 3335   | 0 |
|      | Apr 1       | 180    | 0 | 3515   | 0 |
|      | May 1       | 185    | 0 | 3700   | 0 |
|      | Jun 1       | 190    | 0 | 3890   | 0 |
|      | Jul 1       | 195    | 0 | 4085   | 0 |
|      | Aug 1       | 200    | 0 | 4285   | 0 |
|      | Sep 1       | 205    | 0 | 4490   | 0 |
|      | Oct 1       | 210    | 0 | 4700   | 0 |
|      | Nov 1       | 215    | 0 | 4915   | 0 |
|      | Dec 1       | 220    | 0 | 5135   | 0 |
| 1894 | Jan 1       | 225    | 0 | 5360   | 0 |
|      | Feb 1       | 230    | 0 | 5590   | 0 |
|      | Mar 1       | 235    | 0 | 5825   | 0 |
|      | Apr 1       | 240    | 0 | 6065   | 0 |
|      | May 1       | 245    | 0 | 6310   | 0 |
|      | Jun 1       | 250    | 0 | 6560   | 0 |
|      | Jul 1       | 255    | 0 | 6815   | 0 |
|      | Aug 1       | 260    | 0 | 7075   | 0 |
|      | Sep 1       | 265    | 0 | 7340   | 0 |
|      | Oct 1       | 270    | 0 | 7610   | 0 |
|      | Nov 1       | 275    | 0 | 7885   | 0 |
|      | Dec 1       | 280    | 0 | 8165   | 0 |
| 1895 | Jan 1       | 285    | 0 | 8450   | 0 |
|      | Feb 1       | 290    | 0 | 8740   | 0 |
|      | Mar 1       | 295    | 0 | 9035   | 0 |
|      | Apr 1       | 300    | 0 | 9335   | 0 |
|      | May 1       | 305    | 0 | 9640   | 0 |
|      | Jun 1       | 310    | 0 | 9950   | 0 |
|      | Jul 1       | 315    | 0 | 10265  | 0 |
|      | Aug 1       | 320    | 0 | 10585  | 0 |
|      | Sep 1       | 325    | 0 | 10910  | 0 |
|      | Oct 1       | 330    | 0 | 11240  | 0 |
|      | Nov 1       | 335    | 0 | 11575  | 0 |
|      | Dec 1       | 340    | 0 | 11915  | 0 |
| 1896 | Jan 1       | 345    | 0 | 12260  | 0 |
|      | Feb 1       | 350    | 0 | 12610  | 0 |
|      | Mar 1       | 355    | 0 | 12965  | 0 |
|      | Apr 1       | 360    | 0 | 13325  | 0 |
|      | May 1       | 365    | 0 | 13690  | 0 |
|      | Jun 1       | 370    | 0 | 14060  | 0 |
|      | Jul 1       | 375    | 0 | 14435  | 0 |
|      | Aug 1       | 380    | 0 | 14815  | 0 |
|      | Sep 1       | 385    | 0 | 15200  | 0 |
|      | Oct 1       | 390    | 0 | 15590  | 0 |
|      | Nov 1       | 395    | 0 | 15985  | 0 |
|      | Dec 1       | 400    | 0 | 16385  | 0 |
| 1897 | Jan 1       | 405    | 0 | 16790  | 0 |
|      | Feb 1       | 410    | 0 | 17200  | 0 |
|      | Mar 1       | 415    | 0 | 17615  | 0 |
|      | Apr 1       | 420    | 0 | 18035  | 0 |
|      | May 1       | 425    | 0 | 18460  | 0 |
|      | Jun 1       | 430    | 0 | 18890  | 0 |
|      | Jul 1       | 435    | 0 | 19325  | 0 |
|      | Aug 1       | 440    | 0 | 19765  | 0 |
|      | Sep 1       | 445    | 0 | 20210  | 0 |
|      | Oct 1       | 450    | 0 | 20660  | 0 |
|      | Nov 1       | 455    | 0 | 21115  | 0 |
|      | Dec 1       | 460    | 0 | 21575  | 0 |
| 1898 | Jan 1       | 465    | 0 | 22040  | 0 |
|      | Feb 1       | 470    | 0 | 22510  | 0 |
|      | Mar 1       | 475    | 0 | 22985  | 0 |
|      | Apr 1       | 480    | 0 | 23465  | 0 |
|      | May 1       | 485    | 0 | 23950  | 0 |
|      | Jun 1       | 490    | 0 | 24440  | 0 |
|      | Jul 1       | 495    | 0 | 24935  | 0 |
|      | Aug 1       | 500    | 0 | 25435  | 0 |
|      | Sep 1       | 505    | 0 | 25940  | 0 |
|      | Oct 1       | 510    | 0 | 26450  | 0 |
|      | Nov 1       | 515    | 0 | 26965  | 0 |
|      | Dec 1       | 520    | 0 | 27485  | 0 |
| 1899 | Jan 1       | 525    | 0 | 28010  | 0 |
|      | Feb 1       | 530    | 0 | 28540  | 0 |
|      | Mar 1       | 535    | 0 | 29075  | 0 |
|      | Apr 1       | 540    | 0 | 29615  | 0 |
|      | May 1       | 545    | 0 | 30160  | 0 |
|      | Jun 1       | 550    | 0 | 30710  | 0 |
|      | Jul 1       | 555    | 0 | 31265  | 0 |
|      | Aug 1       | 560    | 0 | 31825  | 0 |
|      | Sep 1       | 565    | 0 | 32390  | 0 |
|      | Oct 1       | 570    | 0 | 32960  | 0 |
|      | Nov 1       | 575    | 0 | 33535  | 0 |
|      | Dec 1       | 580    | 0 | 34115  | 0 |
| 1900 | Jan 1       | 585    | 0 | 34700  | 0 |
|      | Feb 1       | 590    | 0 | 35290  | 0 |
|      | Mar 1       | 595    | 0 | 35885  | 0 |
|      | Apr 1       | 600    | 0 | 36485  | 0 |
|      | May 1       | 605    | 0 | 37090  | 0 |
|      | Jun 1       | 610    | 0 | 37700  | 0 |
|      | Jul 1       | 615    | 0 | 38315  | 0 |
|      | Aug 1       | 620    | 0 | 38935  | 0 |
|      | Sep 1       | 625    | 0 | 39560  | 0 |
|      | Oct 1       | 630    | 0 | 40190  | 0 |
|      | Nov 1       | 635    | 0 | 40825  | 0 |
|      | Dec 1       | 640    | 0 | 41465  | 0 |
| 1901 | Jan 1       | 645    | 0 | 42110  | 0 |
|      | Feb 1       | 650    | 0 | 42760  | 0 |
|      | Mar 1       | 655    | 0 | 43415  | 0 |
|      | Apr 1       | 660    | 0 | 44075  | 0 |
|      | May 1       | 665    | 0 | 44740  | 0 |
|      | Jun 1       | 670    | 0 | 45410  | 0 |
|      | Jul 1       | 675    | 0 | 46085  | 0 |
|      | Aug 1       | 680    | 0 | 46765  | 0 |
|      | Sep 1       | 685    | 0 | 47450  | 0 |
|      | Oct 1       | 690    | 0 | 48140  | 0 |
|      | Nov 1       | 695    | 0 | 48835  | 0 |
|      | Dec 1       | 700    | 0 | 49535  | 0 |
| 1902 | Jan 1       | 705    | 0 | 50240  | 0 |
|      | Feb 1       | 710    | 0 | 50950  | 0 |
|      | Mar 1       | 715    | 0 | 51665  | 0 |
|      | Apr 1       | 720    | 0 | 52385  | 0 |
|      | May 1       | 725    | 0 | 53110  | 0 |
|      | Jun 1       | 730    | 0 | 53840  | 0 |
|      | Jul 1       | 735    | 0 | 54575  | 0 |
|      | Aug 1       | 740    | 0 | 55315  | 0 |
|      | Sep 1       | 745    | 0 | 56060  | 0 |
|      | Oct 1       | 750    | 0 | 56810  | 0 |
|      | Nov 1       | 755    | 0 | 57565  | 0 |
|      | Dec 1       | 760    | 0 | 58325  | 0 |
| 1903 | Jan 1       | 765    | 0 | 59090  | 0 |
|      | Feb 1       | 770    | 0 | 59860  | 0 |
|      | Mar 1       | 775    | 0 | 60635  | 0 |
|      | Apr 1       | 780    | 0 | 61415  | 0 |
|      | May 1       | 785    | 0 | 62200  | 0 |
|      | Jun 1       | 790    | 0 | 62990  | 0 |
|      | Jul 1       | 795    | 0 | 63785  | 0 |
|      | Aug 1       | 800    | 0 | 64585  | 0 |
|      | Sep 1       | 805    | 0 | 65390  | 0 |
|      | Oct 1       | 810    | 0 | 66200  | 0 |
|      | Nov 1       | 815    | 0 | 67015  | 0 |
|      | Dec 1       | 820    | 0 | 67835  | 0 |
| 1904 | Jan 1       | 825    | 0 | 68660  | 0 |
|      | Feb 1       | 830    | 0 | 69490  | 0 |
|      | Mar 1       | 835    | 0 | 70325  | 0 |
|      | Apr 1       | 840    | 0 | 71165  | 0 |
|      | May 1       | 845    | 0 | 72010  | 0 |
|      | Jun 1       | 850    | 0 | 72860  | 0 |
|      | Jul 1       | 855    | 0 | 73715  | 0 |
|      | Aug 1       | 860    | 0 | 74575  | 0 |
|      | Sep 1       | 865    | 0 | 75440  | 0 |
|      | Oct 1       | 870    | 0 | 76310  | 0 |
|      | Nov 1       | 875    | 0 | 77185  | 0 |
|      | Dec 1       | 880    | 0 | 78065  | 0 |
| 1905 | Jan 1       | 885    | 0 | 78950  | 0 |
|      | Feb 1       | 890    | 0 | 79840  | 0 |
|      | Mar 1       | 895    | 0 | 80735  | 0 |
|      | Apr 1       | 900    | 0 | 81635  | 0 |
|      | May 1       | 905    | 0 | 82540  | 0 |
|      | Jun 1       | 910    | 0 | 83450  | 0 |
|      | Jul 1       | 915    | 0 | 84365  | 0 |
|      | Aug 1       | 920    | 0 | 85285  | 0 |
|      | Sep 1       | 925    | 0 | 86210  | 0 |
|      | Oct 1       | 930    | 0 | 87140  | 0 |
|      | Nov 1       | 935    | 0 | 88075  | 0 |
|      | Dec 1       | 940    | 0 | 89015  | 0 |
| 1906 | Jan 1       | 945    | 0 | 89960  | 0 |
|      | Feb 1       | 950    | 0 | 90910  | 0 |
|      | Mar 1       | 955    | 0 | 91865  | 0 |
|      | Apr 1       | 960    | 0 | 92825  | 0 |
|      | May 1       | 965    | 0 | 93790  | 0 |
|      | Jun 1       | 970    | 0 | 94760  | 0 |
|      | Jul 1       | 975    | 0 | 95735  | 0 |
|      | Aug 1       | 980    | 0 | 96715  | 0 |
|      | Sep 1       | 985    | 0 | 97700  | 0 |
|      | Oct 1       | 990    | 0 | 98690  | 0 |
|      | Nov 1       | 995    | 0 | 99685  | 0 |
|      | Dec 1       | 1000   | 0 | 100685 | 0 |



TABLE VII.

## TREATMENT OF VENEREAL DISEASE, YEAR 1929.

| Treatment Centre.         | Patients from all Areas.<br>Total No. treated for first time. | ESSEX PATIENTS.                                    |                |             |          |        |                                            |                  |                                   |             |          |
|---------------------------|---------------------------------------------------------------|----------------------------------------------------|----------------|-------------|----------|--------|--------------------------------------------|------------------|-----------------------------------|-------------|----------|
|                           |                                                               | Total Number treated for first time suffering from |                |             |          |        | Total No. of Attentions of Essex Patients. | In-patient Days. | Doses of Arseno-Benzol Compounds. |             | Hostels. |
|                           |                                                               | Syphilis.                                          | Soft Chancres. | Gonorrhoea. | Not V.D. | Total. |                                            |                  | Out-Patients                      | In-Patients |          |
|                           |                                                               |                                                    |                |             |          |        |                                            |                  |                                   |             |          |
| London Hospitals          | 24,786                                                        | 224                                                | 6              | 310         | 355      | 895    | 22233                                      | 1469             | 2164                              | 2164        | 2222     |
| St. Bartholomew's, London | 498                                                           | 2                                                  | —              | 1           | 3        | 6      | 77                                         | —                | 10                                | —           | —        |
| Chelmsford                | 17                                                            | 4                                                  | —              | 13          | —        | 17     | 1367                                       | 37               | 42                                | —           | —        |
| Colchester                | 81                                                            | 29                                                 | 1              | 32          | 17       | 79     | 1349                                       | 108              | 289                               | —           | —        |
| Ipswich                   | 239                                                           | 3                                                  | —              | 7           | 7        | 17     | 83                                         | —                | 25                                | —           | —        |
| Southend                  | 361                                                           | 12                                                 | 1              | 20          | 38       | 71     | 904                                        | 18               | 76                                | 3           | —        |
| Gravesend                 | 534                                                           | 41                                                 | 6              | 83          | 14       | 144    | 2510                                       | —                | 208                               | —           | —        |
| Total for 1929...         | 26,516                                                        | 315                                                | 14             | 466         | 434      | 1229   | 28523                                      | 1632             | —                                 | —           | 2222     |
| Total for 1928...         | 27,576                                                        | 259                                                | 12             | 505         | 425      | 1201   | 25880                                      | 2831             | —                                 | —           | 2373     |
| " 1927...                 | 30,466                                                        | 276                                                | 6              | 550         | 488      | 1320   | 21756                                      | 3739             | —                                 | —           | 2579     |
| " 1926...                 | 28,119                                                        | 237                                                | 10             | 497         | 408      | 1152   | 18373                                      | 2841             | —                                 | —           | 1403     |
| " 1925...                 | 27,296                                                        | 272                                                | 10             | 389         | 397      | 1068   | 18116                                      | 2937             | —                                 | —           | 1767     |

## BACTERIOLOGICAL EXAMINATIONS.

The County Council has continued the arrangements with Dr. J. F. Beale, Bacteriologist for Essex, of 91, Queen Victoria Street, London, E.C.4 (Telephone No. City 7116) for the examination of bacteriological specimens from the Administrative County. Table VIII. on page 21 shews in detail the number and type of specimens examined from the different sanitary districts during 1929.

The list of examinations approved by the County Council was printed in my Annual Report for the year 1924. In addition, arrangements have been made for the following examinations to be carried out :—

- (a) Examination of river water and sewage effluents.
- (b) Examination of drinking waters.
- (c) Guinea pig inoculations for virulence tests.

The examination of other bacteriological specimens not included in the approved list, or of samples of water, is only undertaken at the expense of the County Council subject to my special approval, otherwise the cost of the examinations is charged to the Local Authorities concerned.

It is a pleasure to again report the smooth working of the bacteriological scheme throughout the year. That its advantages are fully realised by the medical profession can be observed from the increasing number of examinations carried out during the past few years, as follows :—

| Year. |    | Diphtheria. |    | Sputa. |    | Typhoid. |    | Ringworm. |    | Miscellaneous. |    | Total. |
|-------|----|-------------|----|--------|----|----------|----|-----------|----|----------------|----|--------|
| 1929  | .. | 13,277      | .. | 6,745  | .. | 232      | .. | 205       | .. | 297            | .. | 20,756 |
| 1928  | .. | 13,988      | .. | 5,803  | .. | 338      | .. | 223       | .. | 350            | .. | 20,702 |
| 1927  | .. | 10,293      | .. | 5,757  | .. | 240      | .. | 285       | .. | 226            | .. | 16,801 |
| 1926  | .. | 7,642       | .. | 4,895  | .. | 151      | .. | 431       | .. | 247            | .. | 13,366 |

## HOUSING.

The particulars recorded in Table IX. on page 22a for each Sanitary District relate to the year 1928, as the information for the year 1929 is not yet available.

NEW DWELLING-HOUSES ERECTED. For the first time since 1923, there has been a decrease in the number of dwelling-houses erected, the figures for the years 1927 and 1928 being :—

|                                                 | Erected by. | 1928. | 1927. |
|-------------------------------------------------|-------------|-------|-------|
| Local Authorities with State assistance         | ...         | 1094  | 2099  |
| Other bodies or persons with State assistance.. |             | 8597  | 8589  |
| Private enterprise                              | .. ..       | 2993  | 3103  |
| Totals                                          | .. ..       | 12684 | 13791 |

The largest number of dwelling-houses were erected in Dagenham U. (4,165), Ilford B. (877), Hornchurch U. (863), Romford U. (771), Walthamstow B. (687), Billericay R. (636), Chingford U. (467), Rochford R. (406).



TABLE VIII.

SHEWING NUMBER AND TYPE OF SPECIMENS EXAMINED BY THE  
BACTERIOLOGIST FOR ESSEX--YEAR 1929.

| SANITARY DISTRICTS. | Diph-<br>theria. | Sputa. | Typhoid | Ring-<br>worm. | Miscel-<br>laneous. | Total<br>Specimens<br>examined. | Bio-<br>logical<br>Examina-<br>tions. |
|---------------------|------------------|--------|---------|----------------|---------------------|---------------------------------|---------------------------------------|
| URBAN—              |                  |        |         |                |                     |                                 |                                       |
| Barking             | +1509            | ‡511   | 22      | 6              | 6                   | 2054                            | 2                                     |
| Benfleet            | 29               | 3      | 1       | ...            | ...                 | 33                              | ...                                   |
| Braintree           | 77               | ‡35    | 4       | 1              | 1                   | 118                             | 1                                     |
| Brentwood           | 100              | ‡50    | 3       | 2              | 1                   | 156                             | ...                                   |
| Brightlingsea       | 5                | 2      | ...     | ...            | 2                   | 9                               | ...                                   |
| Buckhurst Hill      | 4                | 2      | ...     | ...            | 14                  | 20                              | ...                                   |
| Burnham-on-Crouch   | 15               | 4      | ...     | ...            | ...                 | 19                              | ...                                   |
| Canvey Island       | 24               | 8      | 3       | ...            | 5                   | 40                              | ...                                   |
| Chelmsford B.       | +491             | ‡202   | 32      | 4              | 6                   | 735                             | 3                                     |
| Chingford           | 82               | 54     | 1       | ...            | 43                  | 180                             | 1                                     |
| Clacton-on-Sea      | 103              | 54     | 3       | 1              | 4                   | 165                             | ...                                   |
| Colchester B.       | 13               | ‡195   | 39      | 1              | 1                   | 249                             | ...                                   |
| Dagenham            | 497              | ‡362   | 3       | 15             | 2                   | 879                             | ...                                   |
| Epping              | 279              | ‡26    | 4       | 4              | 8                   | 321                             | ...                                   |
| Frinton-on-Sea      | ...              | 2      | ...     | 4              | ...                 | 6                               | ...                                   |
| Grays               | +2636            | ‡115   | 7       | 10             | 13                  | 2781                            | 2                                     |
| Halstead            | 15               | ‡24    | 2       | ...            | 6                   | 47                              | ...                                   |
| Harwich B.          | 115              | ‡56    | 1       | 1              | ...                 | 173                             | ...                                   |
| Hornchurch          | 12               | 9      | 1       | ...            | ...                 | 22                              | ...                                   |
| Ilford B.           | +677             | ‡408   | 31      | ...            | 39                  | 1155                            | 42                                    |
| Leyton B.           | +1916            | ‡706   | 8       | 27             | 6                   | 2663                            | ...                                   |
| Loughton            | 3                | 16     | ...     | ...            | 1                   | 20                              | ...                                   |
| Maldon B.           | 36               | ‡32    | 9       | 2              | 4                   | 83                              | ...                                   |
| Purfleet            | 14               | 9      | ...     | ...            | ...                 | 23                              | ...                                   |
| Rayleigh            | 26               | 3      | 1       | ...            | 3                   | 33                              | ...                                   |
| Romford             | +1458            | ‡171   | 8       | 6              | 4                   | 1647                            | 12                                    |
| Saffron Walden B.   | +71              | ‡13    | ...     | 4              | 1                   | 89                              | ...                                   |
| Shoeburyness        | 51               | 18     | 1       | 1              | 1                   | 72                              | ...                                   |
| Tilbury             | 340              | 48     | ...     | 20             | 1                   | 409                             | ...                                   |
| Waltham Holy Cross  | +168             | ‡44    | 2       | 1              | 7                   | 222                             | 3                                     |
| Walthamstow B.      | 180              | ‡684   | 8       | 16             | 16                  | 904                             | 1                                     |
| Walton-on-the-Naze  | 4                | 1      | ...     | ...            | 1                   | 6                               | ...                                   |
| Wanstead            | 24               | 52     | ...     | ...            | ...                 | 76                              | ...                                   |
| West Mersea         | ...              | 3      | ...     | ...            | ...                 | 3                               | ...                                   |
| Witham              | 203              | 36     | 3       | 2              | 2                   | 246                             | ...                                   |
| Wivenhoe            | 1                | 8      | ...     | ...            | ...                 | 9                               | ...                                   |
| Woodford            | 261              | ‡82    | 1       | 1              | 3                   | 348                             | ...                                   |
| Total               | 11439            | 4048   | 198     | 129            | 201                 | 16015                           | 67                                    |
| RURAL—              |                  |        |         |                |                     |                                 |                                       |
| Belchamp            | 26               | 2      | 1       | ...            | ...                 | 29                              | ...                                   |
| Billerica           | +256             | 263    | 2       | ...            | 1                   | 522                             | 1                                     |
| Braintree           | +208             | ‡1200  | 2       | 14             | 21                  | 1445                            | 1                                     |
| Bumpstead           | 1                | 6      | ...     | 1              | ...                 | 8                               | ...                                   |
| Chelmsford          | 87               | 82     | 2       | 3              | 11                  | 185                             | 1                                     |
| Dunmow              | 16               | 22     | 1       | ...            | 7                   | 46                              | ...                                   |
| Epping              | 205              | 12     | 1       | 2              | 6                   | 226                             | ...                                   |
| Halstead            | 141              | 40     | 7       | 1              | 1                   | 190                             | ...                                   |
| Lexden & Winstree   | 39               | 23     | 1       | 5              | 11                  | 79                              | 1                                     |
| Maldon              | 239              | 68     | 5       | 7              | 7                   | 326                             | ...                                   |
| Ongar               | 92               | 12     | 1       | 31             | 2                   | 138                             | ...                                   |
| Orsett              | 201              | 55     | 3       | 1              | ...                 | 260                             | ...                                   |
| Rochford            | +191             | 55     | 3       | 2              | 2                   | 253                             | ...                                   |
| Romford             | 78               | ‡830   | 2       | 4              | 23                  | 937                             | ...                                   |
| Saffron Walden      | 18               | 7      | ...     | ...            | 1                   | 26                              | ...                                   |
| Stansted            | 12               | 5      | ...     | ...            | 2                   | 19                              | ...                                   |
| Tendring            | 28               | 15     | 3       | 5              | 1                   | 52                              | ...                                   |
| Totals— Rural       | 1838             | 2697   | 34      | 76             | 96                  | 4741                            | 4                                     |
| Urban               | 11439            | 4048   | 198     | 129            | 201                 | 16015                           | 67                                    |
| Adminis. County     | 13277            | 6745   | 232     | 205            | 297                 | 20756                           | 71                                    |

† Includes specimens taken at Isolation Hospital in District.

‡ " " Sanatorium or Dispensary in District.



INSPECTIONS. 33,458 dwelling-houses were inspected for defects under the Public Health and Housing Acts, and 11,303 or 33.5 per cent., were found not to be in all respects reasonably fit for human habitation; whilst 220 or 0.6 per cent., were found to be in a state so dangerous or injurious to health as to be unfit for human habitation.

10,860 dwelling-houses were rendered fit as the result of informal action by the Local Sanitary Authorities or their officers.

ACTION UNDER STATUTORY POWERS. In eight Urban Districts and one Rural District it was not necessary to serve any statutory notices. In the remaining areas such notices were issued, with the results indicated below :—

|                                                                                                                                                    |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Number of dwelling-houses regarding which notices were served requiring repairs .. .. .                                                            | 3325 |
| Number of dwelling-houses rendered fit by owners after service of formal notices .. .. .                                                           | 2987 |
| Number of dwelling-houses rendered fit by Local Authorities in default of owners after service of formal notices ..                                | 95   |
| Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close .. .. . | 49   |

UNFIT DWELLING-HOUSES. Inspections resulted in the responsible officers making 157 representations to their respective Local Sanitary Authorities in respect to dwelling-houses which appeared "to be in a state so dangerous or injurious to health as to be unfit for human habitation."

Under Section 25 of the Housing Act, 1925, Rural Councils are required to send to the County Council copies of any representations or Closing Orders made in respect of such property, but only six out of ten Rural Councils furnished such information, the figures for 1928 being as follows :—

|                                                                                                                 |    |
|-----------------------------------------------------------------------------------------------------------------|----|
| Number of Rural Districts in which representations or Closing Orders were made .. .. .                          | 10 |
| Number of representations made in Rural Districts with a view to making Closing Orders (See Table IX) .. .. .   | 75 |
| Number of houses in respect of which Rural Councils made Closing Orders (see Table IX) .. .. .                  | 74 |
| Number of Rural Councils which sent copies of representations or Closing Orders to County Council .. .. .       | 6  |
| Number of houses regarding which copies of representations or Closing Orders were received by County Council .. | 41 |

Where the Local Sanitary Authorities approve of such representations, they are required by Section 11 of the Housing Act, 1925, to make a Closing Order prohibiting the use of the houses for human habitation until, in their judgment, the houses are rendered fit for that purpose. In this connection the records for 1928 are as follows :—



**TABLE IX**  
**SHOWING PARTICULARS OF WORK CARRIED OUT BY LOCAL SANITARY AUTHORITIES UNDER THE**  
**PUBLIC HEALTH AND HOUSING ACTS DURING THE YEAR 1928.**

| LOCAL HEALTH AND HOUSING ACTS DURING THE YEAR 1928. |                                    |                                                    |                                   |                                                                                                                   |                                                                                            |                                                                                                           |                                                                                      |                                                                                                                         |                                                                                                           |                                                              |                                                                            |                                                                                           |                                                                 |            |                                                                                     |                                                                                           |                                                                                                    |                                                               |                                                                                        |                                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     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| SANITARY DISTRICTS.                                 | NEW HOUSES<br>ERECTED DURING 1928. |                                                    |                                   | UNFIT DWELLING HOUSES.                                                                                            |                                                                                            |                                                                                                           |                                                                                      | Houses<br>rendered<br>fit in<br>consequence<br>of (informal)<br>action by<br>Local<br>Authority<br>or their<br>Officers | ACTION UNDER STATUTORY POWERS.                                                                            |                                                              |                                                                            |                                                                                           |                                                                 |            |                                                                                     |                                                                                           |                                                                                                    |                                                               |                                                                                        |                                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     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|                                                     | Total.                             | With State assistance<br>under Housing Acts,<br>by |                                   | Total No.<br>inspected<br>for Housing<br>Defects<br>under<br>Public<br>Health<br>Consolidat-<br>ed Regs.<br>1925. | No. inspec-<br>ted and<br>recorded<br>under<br>Housing<br>Consolidat-<br>ed Regs.<br>1925. | No. found<br>so danger-<br>ous or<br>injurious<br>to health as<br>to be unfit<br>for human<br>habitation. | No. found<br>not in all<br>respects<br>reasonably<br>fit for<br>human<br>habitation. |                                                                                                                         | PROCEEDINGS UNDER SECTION 3 HOUSING<br>ACT, 1925.                                                         |                                                              | PROCEEDINGS UNDER<br>PUBLIC HEALTH ACTS.                                   |                                                                                           | PROCEEDINGS UNDER SECTIONS 11, 14 & 15 OF<br>HOUSING ACT, 1925. |            |                                                                                     |                                                                                           |                                                                                                    |                                                               |                                                                                        |                                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     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|                                                     |                                    | Local<br>Authority.                                | Other<br>Bodies<br>or<br>Persons. |                                                                                                                   |                                                                                            |                                                                                                           |                                                                                      |                                                                                                                         | No. of<br>Dwelling<br>Houses<br>in respect of<br>which<br>Notices<br>were served<br>requiring<br>repairs. | No. Dwelling Houses<br>rendered fit after<br>formal Notices. | No. of<br>Dwelling<br>Houses<br>Closing<br>Orders<br>because<br>operative. | No. of<br>Dwelling<br>Houses<br>in which defects were<br>remedied after formal<br>Notice. | By Local<br>Authority<br>in default<br>of Owners.               | By Owners. | No. of repre-<br>sentations made<br>with view<br>to making<br>of Closing<br>Orders. | No. of<br>Dwelling<br>Houses<br>in respect<br>of which<br>Closing<br>Orders<br>were made. | No. of Dwel-<br>ling Houses<br>Closing<br>Orders<br>determined<br>Houses<br>being<br>rendered fit. | No. of<br>Dwelling<br>Houses<br>Demolition<br>Orders<br>made. | No. of<br>Dwelling<br>Houses<br>demolished<br>in pursuance<br>of Demolition<br>Orders. | No. of<br>Houses<br>demolished<br>voluntarily. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 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| BARKING                                             | 375                                | 40                                                 | 270                               | 4151                                                                                                              | 739                                                                                        | 2                                                                                                         | 2122                                                                                 | 1676                                                                                                                    | 129                                                                                                       | 123                                                          | 6                                                                          | 18                                           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| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |





|                                                                                    |     |
|------------------------------------------------------------------------------------|-----|
| Number of representations made with a view to the making of Closing Orders .. .. . | 157 |
| Number of dwelling-houses in respect of which Closing Orders were made .. .. .     | 155 |
| Number of such dwelling-houses rendered fit and Closing Orders determined .. .. .  | 42  |
| Number of dwelling-houses in respect of which Demolition Orders were made .. .. .  | 90  |
| Number of dwelling-houses demolished in pursuance of Demolition Orders .. .. .     | 70  |
| Number of dwelling-houses demolished voluntary .. .. .                             | 33  |

It will be seen that 103 dwelling-houses were demolished during the year 1928. This is the largest number of demolitions recorded since 1921 when this information was first tabulated in this way ; the average number of demolitions during the previous seven years being 23.

#### **SOUTH ESSEX JOINT ADVISORY TOWN PLANNING COMMITTEE.**

The aims and objects of this Committee, which was formed in June, 1922, are to prepare a Town Planning Scheme and Statement for the area on the northern bank of the Thames from Shoeburyness in the east to the large centres of population at East and West Ham on the west of the Administrative County.

Since 1928, Mr. S. D. Adshead, Professor on Town Planning, London University, has been preparing a regional report and plan for this area. The following Parts of the report have now been set up in type and will shortly be submitted to the Committee for approval :—

|                  |                                    |
|------------------|------------------------------------|
| Part I .. .. .   | Survey.                            |
| Part II .. .. .  | Development of the Port of London. |
| Part III .. .. . | Transport.                         |

It is hoped that the suggestions contained in these reports will be taken into consideration by everyone concerned, as the developments which are taking place in this area are of far reaching importance.

#### **HOUSING (RURAL WORKERS) ACT, 1926.**

The administration of this Act has been delegated by the County Council to the Agricultural Committee, and the duties thereunder are carried out by the County Land Agent, who has kindly supplied the following report upon the work for the year 1929 :—

The number of requests received for Forms of Application, during the year 1929, was fifty-two. Twenty-nine Forms were returned relating to 58 cottages.

The Districts in which the cottages are situate are as follows :—

| Sanitary District.   | No. of Applications. | No. of Cottages. | No. of Cottages in respect of which Grants have been made | Total Grants in the Year.<br>£ |
|----------------------|----------------------|------------------|-----------------------------------------------------------|--------------------------------|
| Billericay R. ..     | 1                    | 2                | 2                                                         | 200                            |
| Braintree R. ..      | 4                    | 8                | 6                                                         | 580                            |
| Belchamp R. ..       | 2                    | 4                | 3                                                         | 251                            |
| Chelmsford R. ..     | 5                    | 10               | 9                                                         | 865                            |
| Dunmow R. ..         | 3                    | 6                | 6                                                         | 556                            |
| Epping R. ..         | 1                    | 6                | 6                                                         | 256                            |
| Halstead R. ..       | 1                    | 2                | 2                                                         | 200                            |
| Maldon R. ..         | 2                    | 2                | 2                                                         | 142                            |
| Ongar R. ..          | 5                    | 9                | 8                                                         | 716                            |
| Stansted R. ..       | 2                    | 6                | —                                                         | —                              |
| Saffron Walden R. .. | 1                    | 1                | —                                                         | —                              |
| Tendring R. ..       | 2                    | 2                | —                                                         | —                              |
|                      | 29                   | 58               | 44                                                        | £3,766                         |

Of the cottages included in the above applications, 44 were passed for grants, 1 was not approved, 1 was withdrawn and 12 were still under consideration at the end of the year.

The total number of cottages reconditioned under the Act in Essex, up to December, 1929, is 104.

Particulars of three typical cases of cottages re-constructed or improved by grants made by the Council under the Act, during 1929 :—

(1) *Parish of Wickham St. Pauls.*

Old plaster and thatched cottage.

Works approved and carried out :—

Erection of one new chimney stack, addition of new lean-to scullery, including larder, copper and sink, forming new staircase. The whole of the plaster to walls to be knocked off and the thatched roof to be replaced with plain sand faced tiles.

Grant made to owner, £100.

(2) *Parish of Great Waltham.*

Row of three cottages.

Works approved and carried out :—

Take off and re-instate outside plaster work. Make good present tiled roof. Formation of two gable windows to front elevation. Two new chimney stacks. Provision of back additions to give to each tenement larder, coalplace and e.c. Formation of brick paved way to back doors.





## SEWAGE WORKS AND RIVER POLLUTION.

## Loans.

During the year two Municipal Boroughs, eight Urban District Councils and five Rural District Councils made application to the Ministry of Health for sanction to borrow varying sums of money, a gross total of £709,840, for works of sewerage and sewage disposal, and in consequence the following public inquiries were held :—

| Date of Inquiry. | Local Sanitary Authority. | Parish.                                              | River.     | Loan required. | Purpose.                                                                               |
|------------------|---------------------------|------------------------------------------------------|------------|----------------|----------------------------------------------------------------------------------------|
| 1929.            |                           |                                                      |            | £              |                                                                                        |
| Jan. 8th         | Dagenham U.               | —                                                    | Thames     | 3,095          | Surface Water Drainage                                                                 |
|                  |                           |                                                      |            | 4,838          | Sewerage                                                                               |
| April 5th        | Woodford U.               | —                                                    | Roding     | 43,000         | Sewerage & Sewage Disposal                                                             |
| " 16th           | Clacton-on-Sea U.         | —                                                    | Sea        | 30,000         | Sewerage                                                                               |
| May 1st          | Loughton U.               | —                                                    | Roding     | 18,000         | Sewage Disposal                                                                        |
| " 7th            | Rochford R.               | Eastwood                                             | Roach      | 39,825         | Sewerage & Sewage Disposal                                                             |
| " 8th            | "                         | South Benfleet                                       | Thames     | 37,545         | " "                                                                                    |
| " 9th            | "                         | Rayleigh                                             | "          | 63,882         | " "                                                                                    |
| " 10th           | "                         | Hockley                                              | Roach      | 13,525         | " "                                                                                    |
| " 23rd           | Wanstead U.               | —                                                    | Roding     | 24,000         | Sewage Disposal                                                                        |
| June 4th         | Orsett R.                 | Stanford-le-Hope, Corringham and Horndon-on-the Hill | Thames     | 13,800         | Sewerage & Sewage Disposal                                                             |
| " 7th            | Rochford R.               | Great Wakering                                       | "          | 23,150         | " "                                                                                    |
| July 25th        | "                         | Hawkwell, Hockley, Ashingdon, Eastwood and Rochford  | Roach      | 48,448         | " "                                                                                    |
| " 26th           | "                         | Hadleigh                                             | Thames     | 9,719          | Sewerage                                                                               |
| Aug. 2nd         | Clacton U.                | —                                                    | Sea        | 73,200         | "                                                                                      |
|                  | Tendring R.               | Little Holland                                       | "          |                |                                                                                        |
| " 7th            | Maldon B.                 | —                                                    | Blackwater | 2,900          | Storm Water Drain & Soil Sewer                                                         |
| Oct. 2nd         | Shoeburyness U.           | —                                                    | Thames     | 27,741         | Sewerage & Sewage Disposal                                                             |
| " 3rd            | Braintree R.              | Kelvedon and Feering                                 | Blackwater | —              | For permission to execute works of Sewage Disposal in Lexden & Winstree Rural District |
| " 4th            | Walton-on-the-Naze U.     | —                                                    | Sea        | 450            | Sewerage                                                                               |
| " 14th           | Ilford B.                 | —                                                    | Thames     | 110,430        | Sewage Disposal                                                                        |
|                  | Barking U.                | —                                                    | Thames     | 72,392         | " "                                                                                    |
| Nov. 7th         | Billericay R.             | Hutton, Shenfield and Ingrave                        | Wid        | 49,900         | Sewerage & Sewage Disposal                                                             |
| Total            |                           |                                                      |            | £709,840       |                                                                                        |



## Sewage Works.

Table XI, on page 30 gives particulars of the visits paid by the County Health Inspector to the various sewage works and rivers throughout the Administrative County. It will be seen that 131 samples were obtained, 86 (or 65.6 per cent.) being satisfactory or on the border line, whilst 45 (or 34.4 per cent.) were unsatisfactory. This is the lowest percentage of unsatisfactory samples recorded during the past ten years.

**BLACKWATER VALLEY.** The pollutions of the River Blackwater at Bocking, Coggeshall and Kelvedon in the Braintree Rural District, details of which were given in the Annual Report for 1926, still continue. Sewerage and sewage disposal schemes for these parishes are, however, nearing completion.

Improvements have also been carried out at the small sewage works at Hatfield Peverel in the same Rural District, but the growth of the Parish has created the need for a more extensive and adequate sewerage and sewage disposal system which it is understood is now under consideration by the Braintree Rural District Council.

**CHELMER VALLEY.** The Felstead Beet Sugar Factory, which was first opened in October, 1926, resumed operations early in October, 1929. Since the previous season further improvements had been carried out, notably the exclusion of all surface and rainwater from the Hirschfelder system, which was installed in 1928 at a cost of over £12,000. The surface and rain water were discharged direct into the Stebbing Brook, thus reducing considerably the volume of trade effluent to be dealt with under the above-mentioned system.

In the manufacture of sugar at the Felstead Factory, four kinds of waste water are produced, and in addition there is a domestic sewage effluent, as described below :—

- (1) *Waste water from diffusers and pulp presses*—this is used continuously throughout the season.
- (2) *Waste lime from carbonation and sulphitation*—this is dried and stored in large lagoons near to the Factory.
- (3) *Waste water used to convey and wash beets*—this is kept in circulation throughout the season. After travelling through the flumes, it is passed through a large Dortmund Tank and storage pond, and then pumped back to the factory. Liquid sludge from the Dortmund Tank is discharged on to and impounded in an adjoining meadow to dry.
- (4) *Waste water used for condensing purposes*—this is a clear water which is passed through sprayers and large ponds for cooling before discharging into the Stebbing Brook, or being re-used in the Factory. This constituted the whole of the trade effluent which was discharged into the Stebbing Brook during the season. Cooling proved to be inadequate, as the temperature of the effluent was found on two occasions to be 23° C. and 26° C. respectively. As a result a fungoid growth appeared and developed in the bed and on the sides of and on vegetation in the Stebbing Brook.



- (5) *Domestic Sewage Effluent*—this is discharged from rather primitive sewage works which were slightly improved during the season. They consist of two septic tanks and a series of shallow clinker beds, the effluent passing into a ditch, and eventually reaching a meadow where it is impounded. A sample of a leakage from this meadow was examined and gave an impurity figure of 21.3. The sewage works are inadequate, being incapable of dealing satisfactorily with the domestic sewage from the Factory population which reaches 300 during the season.

During the "season" October to December, 1929, visits were paid to the factory when samples of the trade effluent, which is said to consist entirely of the clear warm water referred to in No. 4 above, were obtained and examined with the following results :—

| Date, 1929.      | Impurity Figure. | Remarks.             |
|------------------|------------------|----------------------|
| October 21st ..  | 2.5              | Satisfactory.        |
| October 27th ..  | 3.9              | Satisfactory.        |
| November 13th .. | 43.0             | Very unsatisfactory. |
| November 20th .. | 19.4             | Unsatisfactory.      |
| November 27th .. | 2.3              | Satisfactory.        |
| November 28th .. | 4.9              | Satisfactory.        |
| December 13th .. | 1.7              | Very satisfactory.   |

It will be seen that five of the seven samples were satisfactory and readily complied with the County Council's standard of 10.0 for a passable effluent. In respect to the two consecutive unsatisfactory samples, verbal and written representations were made to the Works Manager who made every possible effort to ascertain the cause. One theory advanced by the Works Manager was that from analyses and observations he had formed the opinion that the purity of the effluent varied with the purity of the Stebbing Brook from which they abstracted all the water used for trade purposes. He contended that in times of storm as was the case prior to the unsatisfactory samples being taken, the Stebbing Brook yielded a polluted water which was taken into the factory, and for condensing purposes raised to and kept at a fairly high temperature sufficient to cause a multiplication of the initial impurities, resulting in a lowering of the standard of the effluent which was discharged. Samples were taken from the Stebbing Brook above the Factory's intake with the following results :—

| Date.            | Impurity Figure. | Flow.         | Remarks.      |
|------------------|------------------|---------------|---------------|
| November 27th .. | 1.6              | Normal        | Satisfactory. |
| November 28th .. | 11.9             | In Flood      | Very impure.  |
| December 13th .. | 1.4              | Nearly normal | Satisfactory. |

Samples of the trade effluent taken on these dates gave impurity figures of 2.3, 4.95 and 1.7 respectively. These analyses are too few to arrive at any definite conclusion on the point raised by the Works Manager, but it is significant that the rise in the impurity figure of the Stebbing Brook was accompanied by an increased impurity in the trade effluent.



The conclusions drawn from this season's working of the Factory at Felstead may be summarised as follows :—

- (a) The temperature of the trade effluent as it discharged into the Stebbing Brook (on two occasions it was found to be 23° C. and 26° C.) was too high, causing the development of a fungoid growth—the arrangements for cooling the condenser water should be further improved.
- (b) The small works for dealing with the domestic sewage are inadequate ; they should be improved.
- (c) The exclusion of surface and rain water from the Hirschfelder system had the desired effect of reducing the volume of waste water which had to be controlled.
- (d) The trade effluent which discharged into the Stebbing Brook was satisfactory, except on two consecutive occasions in the middle of the season, and no further action became necessary under the Rivers Pollution Prevention Acts.

#### MENTAL DEFICIENCY.

There has been no change during the year in the method of ascertainment and certification of mentally defective persons in the county.

The Chief Assistant County Medical Officer has examined and reported on two hundred and thirty cases—the classifications being as follows :—

|                             |    |    | Males. | Females. | Total.  |
|-----------------------------|----|----|--------|----------|---------|
| Feeble-minded               | .. | .. | .. 59  | 56       | 115 (a) |
| Imbeciles                   | .. | .. | .. 45  | 34       | 79      |
| Idiots ..                   | .. | .. | .. 11  | 13       | 24      |
| Moral Defectives            | .. | .. | .. 2   | 1        | 3       |
| Not certified under the Act | .. | .. | .. 6   | 3        | 9 (b)   |
|                             |    |    | 123    | 107      | 230     |

(a) includes 14 and (b) includes 3 who were referred for advice by the Justices.

Of the feeble-minded, 7 were epileptic subjects and 1 a post-encephalitic.

In the Imbeciles are included 4 epileptic subjects and 29 Mongols.

The Idiots include 3 Mongols, a Cretin, an Epileptic, and a victim of Pseudo-Hypertrophic Paralysis.

The Moral Defectives include an Epileptic and a Post-encephalitic.

During 1929, 41 cases were placed in Institutions, 4 under guardianship, and 93 under statutory supervision. The numbers at the end of the year under some form of control were as follows :—

|                             |    |    |    |     |
|-----------------------------|----|----|----|-----|
| In Institutions             | .. | .. | .. | 503 |
| Under Statutory Supervision |    | .. | .. | 688 |
| Under Guardianship          | .. | .. | .. | 26  |



TABLE XI.

SHOWING SEWAGE WORKS, NUMBER OF VISITS, AND NUMBER OF SAMPLES TAKEN DURING THE YEAR 1929.

| River receiving Effluent.                     | Sewage Works.           | Sanitary District.    | No. of Visits. | Samples taken.                      |                     |        |
|-----------------------------------------------|-------------------------|-----------------------|----------------|-------------------------------------|---------------------|--------|
|                                               |                         |                       |                | No. satisfactory or on border line. | No. unsatisfactory. | Total. |
| Brain ..                                      | Braintree ..            | Braintree U. ..       | 3              | 1                                   | 1                   | 2      |
|                                               | Black Notley Sanatorium | Braintree R. ..       | 1              | 1                                   | —                   | 1      |
| Blackwater ..                                 | Bocking ..              | Braintree R. ..       | 1              | —                                   | —                   | —      |
|                                               | Silver End ..           | Braintree R. ..       | 1              | 1                                   | —                   | 1      |
|                                               | Hatfield Peverel ..     | Braintree R. ..       | 4              | —                                   | 3                   | 3      |
|                                               | Witham ..               | Witham U. ..          | 3              | 2                                   | 1                   | 3      |
|                                               | atchingdon ..           | Maldon R. ..          | 1              | —                                   | —                   | —      |
| Cam ..                                        | Saffron Walden ..       | Saffron Walden B.     | 3              | 2                                   | 1                   | 3      |
| Chelmer ..                                    | Chelmsford ..           | Chelmsford B. ..      | 5              | 2                                   | 4                   | 6      |
|                                               | Great Waltham ..        | Chelmsford R. ..      | 1              | —                                   | 1                   | 1      |
|                                               | Dunmow ..               | Dunmow R. ..          | 2              | 1                                   | 1                   | 2      |
|                                               | Felstead ..             | Dunmow R. ..          | 4              | 1                                   | 2                   | 3      |
|                                               | Thaxted ..              | Dunmow R. ..          | 1              | 1                                   | —                   | 1      |
| Colne ..                                      | Halstead ..             | Halstead U. ..        | 1              | —                                   | 1                   | 1      |
|                                               | Sible Hedingham ..      | Halstead R. ..        | 1              | 1                                   | —                   | 1      |
|                                               | Earls Colne ..          | Halstead R. ..        | 1              | —                                   | 2                   | 2      |
| Crouch ..                                     | Great Burstead ..       | Billericay R. ..      | 1              | 1                                   | —                   | 1      |
| Ingrebourne ..                                | Brook St., Sth. Weald   | Billericay R. ..      | 2              | 4                                   | —                   | 4      |
|                                               | Upminster ..            | Romford R. ..         | 2              | 4                                   | —                   | 4      |
|                                               | Brentwood ..            | Brentwood U. ..       | 2              | 2                                   | 1                   | 3      |
|                                               |                         | Billericay R. ..      |                |                                     |                     |        |
|                                               | Harold Wood ..          | Hornchurch U. ..      | 2              | 2                                   | 5                   | 7      |
| Lee ..                                        | High Beech Hospital     | Waltham Holy Cross U. | 4              | 4                                   | —                   | 4      |
| Mardyke ..                                    | Bury Farm, Great Warley | Romford R. ..         | 1              | 1                                   | —                   | 1      |
|                                               | South Ockendon ..       | Orsett R. ..          | 1              | 2                                   | —                   | 2      |
| Roding ..                                     | Buckhurst Hill ..       | Buckhurst Hill U.     | 2              | —                                   | —                   | —      |
|                                               | Chigwell ..             | Epping R. ..          | 2              | 2                                   | —                   | 2      |
|                                               | Chigwell Row ..         | Epping R. ..          | 3              | 2                                   | 1                   | 3      |
|                                               | Loughton ..             | Loughton U. ..        | 1              | —                                   | —                   | —      |
|                                               | Ongar ..                | Ongar R. ..           | 3              | 3                                   | 1                   | 4      |
|                                               | High Ongar ..           | Ongar R. ..           | 1              | —                                   | —                   | —      |
|                                               | Woodford ..             | Woodford U. ..        | 1              | 1                                   | —                   | 1      |
|                                               | Thornwood ..            | Epping R. ..          | 4              | —                                   | —                   | —      |
|                                               | Theydon Bois ..         | Epping R. ..          | 2              | 1                                   | 1                   | 2      |
|                                               | North Weald ..          | Epping R. ..          | 3              | 3                                   | —                   | 3      |
|                                               | Moreton ..              | Ongar R. ..           | 1              | —                                   | —                   | —      |
|                                               | Abridge ..              | Ongar R. ..           | 3              | —                                   | 1                   | 1      |
|                                               | Hainault ..             | Ilford B. ..          | 1              | —                                   | 1                   | 1      |
|                                               | Hornchurch ..           | Hornchurch U. ..      | 1              | 1                                   | —                   | 1      |
|                                               | Billericay ..           | Billericay R. ..      | 1              | —                                   | 1                   | 1      |
|                                               | Ingatestone ..          | Chelmsford R. ..      | 1              | —                                   | 1                   | 1      |
|                                               | Shenfield ..            | Billericay R. ..      | 2              | 2                                   | —                   | 2      |
|                                               | Great Warley ..         | Romford R. ..         | 2              | 2                                   | —                   | 2      |
| Total ..                                      |                         |                       | 82             | 50                                  | 30                  | 80     |
| Samples from rivers, streams, ditches, &c. .. |                         |                       | 13             | 18                                  | 8                   | 26     |
| Trade effluents ..                            |                         |                       | 9              | 18                                  | 7                   | 25     |
|                                               |                         |                       | 104            | 86                                  | 45                  | 131    |



Institutional accommodation is still limited in spite of vigorous efforts towards augmentation on the part of the Committee. There appears, however, now to be some hope of improvement in the near future. The plans for the enlargement of the Royal Eastern Counties Institution at Colchester, after being held up for about four years by the Board of Control's Architect, have at length been passed, but unfortunately the actual work of extension is still delayed by another and quite unexpected cause. Legal difficulties have arisen over the contract embodying the agreement between the Governors of the Institution and the County and Borough Councils, under which the cost of enlargement is to be financed by these Local Authorities. Every effort is being made to overcome these difficulties and there is no lack of goodwill on either side.

Meanwhile quite a number of urgent cases are awaiting the provision of this additional Institutional accommodation.

Again, in view of the great need for provision for certain cases, which are at present in the Public Assistance Institutions, it is hoped that no time will be lost in providing this very necessary increased accommodation.

The Essex Voluntary Association has rendered invaluable help and assistance in ascertainment, supervision, staffing and control of occupation centres. The shortage of institutional accommodation renders the work of this Association as well as that of the Certifying Officer more arduous and largely minimizes the benefits which would otherwise accrue to the mentally afflicted and the community in general.

#### SALE OF FOOD AND DRUGS ACTS.

The Food and Drugs (Consolidation) Act, 1928, came into force on the 1st January, 1929, and repealed (*inter alia*) the Food and Drugs Acts of 1875, 1879, 1899 and 1927. The new Act will prove exceedingly useful to all engaged in this branch of Local Government work as it consolidates and simplifies the provisions of the earlier Acts as will be observed from the fact that the repealed Acts contained over 100 sections compared with only 38 in the Food and Drugs Act, 1928. The opportunity has also been taken to include in the latter Act the provisions of the Margarine Act, 1887, and the Butter and Margarine Act of 1907.

In Essex, the Food and Drugs Inspectors submit samples direct to the County Analyst, Dr. Bernard J. Dyer, 17, Great Tower Street, London, E.C., and the following statistical information has been abstracted from Dr. Dyer's report to the County Council for the year 1st December, 1928, to 30th November, 1929 :—

|      |    | Total Samples Analysed, | Samples Unsatisfactory. | Percentage of Unsatisfactory Samples. |
|------|----|-------------------------|-------------------------|---------------------------------------|
| 1929 | .. | 5,800                   | .. 102                  | .. 1.8                                |
| 1928 | .. | 4,797                   | .. 143                  | .. 3.0                                |
| 1927 | .. | 4,118                   | .. 146                  | .. 3.5                                |
| 1926 | .. | 3,367                   | .. 110                  | .. 3.3                                |

From the above it will be seen that during 1929 the percentage of unsatisfactory samples obtained, viz., 1.8 per cent. compares very favourably with 3 per cent. in 1928 and 3.5 per cent. in 1927.

In December, 1929, the Ministry of Health issued a circular letter (No. 1059) to all Food and Drug Authorities stating that with the abolition of the tea duty it is no longer possible for the officers of the Customs and Excise to control the delivery of damaged tea and tea sweepings with a result that there is a possibility of an increase in the quantity of contaminated tea offered for sale. 22 samples of tea were analysed during 1929 and all were found satisfactory.



## PUBLIC HEALTH (PRESERVATIVES, &c., IN FOOD) REGULATIONS, 1925.

In his Annual Report Dr. Dyer states "Of the very large variety and large number of samples taken to check the observance of the regulations with respect to preservatives, in only six cases was there found to have been any breach thereof. The samples in question were one sample of sausages which contained a small quantity of boric acid, the presence of which in any quantity is illegal; two samples of sausages sold without any declaration of preservation which were found to contain sulphur dioxide, although not in excess of the quantity that would have been allowable had its presence been declared; and three samples of non-alcoholic 'wine' which contained small quantities of salicylic acid, the presence of which is now illegal. There was reason to believe that in these cases the 'wine' had been a long time in stock, and that salicylic had been added prior to the time when the prohibitory regulations came into force."

### PUBLIC HEALTH PROPAGANDA.

The Propaganda Sub-Committee held 4 meetings during the year, when the principal matters under consideration were in connection with the "How to keep fit" campaign in association with the Federation of Essex Women's Institutes in October, 1929, and with the Health Conference and Exhibition in March, 1930.

(1) COUNTY TRAVELLING HEALTH EXHIBITION. As stated in last year's Annual Report, the Public Health and Housing Committee authorised the preparation of a travelling health exhibition at an estimated cost of £20.

With the permission of the Education Committee, the children at three schools, one woodwork centre and one domestic subjects centre made the undermentioned articles for inclusion in the exhibition. In this connection the Domestic Science Organiser, and the teachers concerned willingly rendered every possible assistance.

- 2 Sets of Baby's Clothes.
- 1 Model Bedroom in miniature (furnished).
- 1 Treasure Cot, lined and decorated.
- 1 Meat Safe.
- 1 Toothbrush Stand.

Other equipment was kindly provided free of charge as follows :—

- Thrift garments, home-made soft toys, &c., by Child Welfare Centres.
- Photographs of Orthopaedic patients by Sir Henry Gauvain.
- Photographs of modern farms and dairies by Sir Thomas Fowell Buxton.

Further articles, including life-sized doll, were purchased, the total cost of all the materials included in the exhibition being £19 2s. 6d.

(2) "HOW TO KEEP FIT" CAMPAIGN. On 22nd October, 1928, the Propaganda Sub-Committee considered a communication from the Federation of Essex Women's Institutes to the effect that they proposed arranging in Autumn, 1929, through the local Institutes a "How to keep fit" Campaign; they enquired whether the County Council would be willing to assist in this campaign by (a) lending the travelling health



exhibition, (b) providing demonstrators and lecturers, and (c) helping with the expense of the halls. It was decided to loan the exhibition with demonstrators and lecturers, subject to the Federation undertaking to be responsible for the cost of hiring the necessary halls.

The Federation agreed to these terms and intimated that they were holding Group Conferences at 17 Centres during the three weeks commencing 15th October, 1929. After carefully considering the whole of the circumstances involved in the erecting, dismantling and transporting the exhibits, it was decided that the Health Exhibition could be shown only at six of the centres on the dates named below :—

|              |    |    |    |                  |
|--------------|----|----|----|------------------|
| 15th October | .. | .. | .. | Saffron Walden.  |
| 17th         | „  | .. | .. | Sible Hedingham. |
| 22nd         | „  | .. | .. | Ongar.           |
| 24th         | „  | .. | .. | Harlow.          |
| 29th         | „  | .. | .. | Orsett.          |
| 31st         | „  | .. | .. | Billericay.      |

At the remaining 11 Centres, the Federation, at my suggestion, made arrangements direct with the Health and Cleanliness Council for the provision of lectures illustrated by films.

After consultations with the local Group Committees at the above-mentioned six Centres, arrangements were made to make the Exhibition as comprehensive as possible by including exhibits and demonstrators from the British Social Hygiene Council, Health and Cleanliness Council, National Milk Publicity Council, National Association for the Prevention of Tuberculosis, and the Essex County Council—total length of stalls being 70 feet. These exhibits were provided free of charge with the exception of those from the British Social Hygiene Council. At the Billericay Exhibition stalls were also provided by the local Public Health Department, League of Nations Union and British Red Cross Society. Lecturers were provided free of charge by the Dental Board of the United Kingdom, and the Health and Cleanliness Council.

The programmes which varied at each Centre, included the following :—

11—12.30 noon. Elder scholars from adjoining elementary schools attended in charge of teachers, and were given short talks at each stall.

2 p.m. .. Formal opening.

2.15—4 p.m. .. Special lectures (15 minutes each) on “Dental Hygiene” and “Health and Cleanliness.”

5-minute papers by members of Women’s Institutes dealing in a practical way with such subjects as :—

“How to keep the Baby fit.”

“How to keep the school child fit.”

“How to keep homes healthy.”

“What to eat.”

“Kill that Fly.”



- 4 p.m. .. Cooking Demonstration by Demonstrator from National Milk Publicity Council.  
General inspection of stalls.
- 7 p.m. .. Public Lectures (at Saffron Walden, Sible Hedingham, Orsett and Billericay), illustrated by films or lantern slides, on "Dental Hygiene," or "Health and Cleanliness."

Lt.-Col. E. N. Buxton, Chairman of the Propaganda Sub-Committee, kindly assisted at Harlow by formally opening the Exhibition.

At Sible Hedingham, the Halstead and Belchamp Districts Care of Children Committee readily co-operated in the arrangements for the evening meeting, and their Chairman (Mr. E. Cornish) occupied the chair.

In each case the co-operation of the local Medical Officers of Health was invited with the following results :—

- (a) Dr. S. R. Richardson attended the Exhibition and occupied the chair at the evening meeting at Saffron Walden.
- (b) Dr. J. S. Ranson formally opened the Sible Hedingham Exhibition.
- (c) Dr. A. S. David formally opened the Ongar Exhibition.
- (d) Dr. W. T. G. Boul formally opened the Orsett Exhibition.
- (e) Dr. J. Douglas Wells occupied the chair at the Billericay evening meeting.

The approximate number of attendances at the six Centres was as follows :—

| Date.                 | Place.          |    | Approximate No. of Attendances |            |          |        |
|-----------------------|-----------------|----|--------------------------------|------------|----------|--------|
|                       |                 |    | Morning.<br>(School Children). | Afternoon. | Evening. | Total. |
| 15th October, 1929 .. | Saffron Walden  | .. | 60                             | 300        | 200      | 560    |
| 17th October, 1929 .. | Sible Hedingham | .. | 120                            | 200        | 250      | 570    |
| 22nd October, 1929 .. | Ongar .. ..     | .. | 75                             | 200        | *        | 275    |
| 24th October, 1929 .. | Harlow .. ..    | .. | 40                             | 300        | *        | 340    |
| 29th October, 1929 .. | Orsett .. ..    | .. | 100                            | 200        | 150      | 450    |
| 31st October, 1929 .. | Billericay ..   | .. | 150                            | 150        | 150      | 450    |

\* Evening Meetings were not included in the Programme.

(3) GENERAL OBSERVATIONS. (i) Experience showed that too many talks had been included in the short time allotted to each exhibition, leaving insufficient time for inspecting each stall. The five-minute papers by members of the Women's Institutes were full of practical hints and were well received at each Centre.

(ii) The exhibits and cooking demonstration showing various ways of cooking milk by the representative of the National Milk Publicity Council proved attractive and instructive.

(iii) The exhibits and photographs loaned by the National Association for the Prevention of Tuberculosis were varied and excellent, but no trained demonstrator attended. The County Health Inspector had to act in this capacity when the school children attended.



(iv) The Health and Cleanliness Council's stall consisted chiefly of posters, booklets, and leaflets, some being particularly suitable for children. This stall proved attractive to the children. A special demonstrator was in attendance. The lantern slides and films shown at the evening meetings were interesting and helpful.

(v) The stall provided by the British Social Hygiene Council displayed posters and literature, under the guidance of a trained demonstrator. At the evening meeting at Saffron Walden, the demonstrator gave an interesting talk on "Social Hygiene." This is the first occasion on which this special subject has been introduced on such a scale to the rural parts of the County. It was largely in the nature of an experiment, and was purposely merged with the general health propaganda, in accordance with the policy laid down by the Public Health and Housing Committee.

From the experience gained, I am satisfied that the usefulness of this stall could be enhanced by including in each programme a short talk by the demonstrator.

(vi) The County Council's Child Welfare stall, in charge of the Chief Health Nurse and the Assistant Chief Health Nurse, who were assisted by the local Health Visitor, was a great success. The practical exhibits, notably the thrift garments, proved attractive and helpful.

(vii) The Essay Competition on "What I learned from the 'How to keep fit' Campaign" organised by the Federation of Essex Women's Institutes secured only 13 entries. The judging of these essays was undertaken by my Department, the marks awarded being 85, 83, 82, 75 (2), 73, 70 (4), 69, 67, 62. I was favourably impressed by the quality of the essays received, and it was no easy task to place them in order of merit, as each contained many good points. If these essays may be taken as representative of the impressions received by the members of the Women's Institutes, the Campaign was evidently successful from all points of view.

(4) **HEALTH LECTURES.** Members of the County Public Health staff gave 57 health lectures during the year to Women's Institutes, Women's Guilds, Brotherhoods, &c.

(5) **COMPENDIUM OF HEALTH SERVICES.** A Compendium of Health Services in the County of Essex was prepared during the year, and was published on 1st February, 1930. The object of this Compendium was to give to the general public particulars of the existing public health services (chiefly those provided by the County Council) in the County of Essex, and to show how they may be utilised by the general public in whose interests they were established, and are maintained. It gives a detailed description of the activities of local Sanitary Authorities, County Borough Councils, County Councils, General Practitioners, National Health Insurance, Hospitals, Voluntary Agencies, &c., &c. 1,000 copies were obtained and it is already out of print.

### **MILK SUPPLY.**

#### **MILK AND DAIRIES (AMENDMENT) ACT, 1922.**

At the request of the Public Health and Housing Committee, a comprehensive report upon the milk supply in the Administrative County was submitted to a meeting of the Housing and General Purposes Sub-Committee on 10th October, 1929.



In that report, particulars were given of the following grades of milk which may be sold under special licence and which are placed in their order of merit :—Certified, Grade A (Tuberculin Tested), Grade A., Grade A (Pasteurised) and Pasteurised. It was pointed out that in 1928 the amount of the four first-named grades of milk sold constituted approximately 1 per cent. of the milk consumed as liquid milk, but that no reliable estimate for pasteurised milk was available. Many criticisms have been made of the titles of these graded milks; they are confusing and misleading, Grade A often being taken to be the best quality milk available. Until these designations are simplified, it is unlikely that the sale of graded milks will increase as rapidly as is desirable.

No standard of cleanliness has been laid down for ordinary milk. Some Local Authorities have set up a working limit for dirt varying from 1 to 5 parts of dirt per 100,000 parts of milk, and have prosecuted where milk has exceeded that limit, contending that milk containing excessive dirt is not of the "nature, substance or quality" demanded. It has been suggested also that milk is not satisfactory when it has more than 500,000 bacteria per cubic centimetre, or/and has the coliform bacteria in 1/1000th of a cubic centimetre. The time has arrived when a bacterial standard should be laid down, but meanwhile, apart from the satisfaction of producing a good milk, there is no encouragement for the progressive dairy farmer who has no greater enemy than the farmer who is producing dirty milk.

After considering the above-mentioned report, the Public Health and Housing Committee sent two recommendations to the County Council, who, at their Meeting on 19th November, 1929, passed the following resolutions :—

RESOLVED. That in the opinion of this Council the present designations of milk are misleading, and that it is desirable that there should be some alteration (*e.g.*, to Grade "A," Grade "B," Grade "C," Grade "D") so that members of the public may more easily recognise which is the highest grade of milk.

RESOLVED ALSO. That in view of the importance of milk as a food, and to encourage the progressive milk producer, the Council are of opinion that it should be an offence for any person to sell or expose for sale milk which does not conform to a prescribed standard of cleanliness.

RESOLVED ALSO. That copies of the foregoing resolutions be sent to the County Councils Association and that the Council's representatives on the Association be asked to press for action to be taken by the Association in regard thereto.

GRADE "A" MILK. Forty-seven licences to produce and sell Grade "A" milk were granted by the County Council during the year under the Milk (Special Designations) Order, 1923, as compared to 45 for the year 1928. One licence was revoked during the year.

Two hundred and forty-two visits were paid to Grade "A" and other farms by the County Health Inspector, who obtained 175 samples for bacteriological examination.



**CLEAN MILK COMPETITION.** The tenth County Clean Milk Competition was inaugurated by the Essex Agricultural Society and conducted by the East Anglian Institute of Agriculture in association with the County Public Health Department. For the first time it was limited to those farmers who did not possess an Essex Clean Milk Competition Diploma. 17 entered the Competition and 10 were successful, 7 being farmers who are licensed to produce Grade A milk.

**LECTURES ON MILK HYGIENE.** At the request of the Agricultural Committee, the County Health Inspector again gave 10 Lectures on Milk Hygiene to the students at the East Anglian Institute of Agriculture, Chelmsford, during the Spring Term of 1929. The subjects dealt with were sanitary conditions, air space and ventilation, water supplies, methods of milking and handling of milk, transportation, prevention of contamination, pasteurisation, sterilisation, legislation affecting milk production, and milk in relation to public health.

**MILK AND DAIRIES (CONSOLIDATION) ACT, 1915.** No routine inspection of dairy herds by Veterinary Surgeons was undertaken during 1929, the activities being confined to the taking of samples of mixed milks by the County Food and Drugs Inspectors and County Health Inspector for microscopical and biological examination.

During the early part of the year, the County Council sanctioned the obtaining of 150 samples for experimental purposes and particulars of the results of the biological examination of 99 of these were included in the last Annual Report. After considering these results, the County Council approved of the taking of 500 further samples for biological examination during the period ending 30th September, 1930. Reports received from the Bacteriologist for Essex during the year, excluding the 99 referred to above, gave the following results :—

|                                                                                           |    |    |                 |                   |
|-------------------------------------------------------------------------------------------|----|----|-----------------|-------------------|
| No. of Reports received                                                                   | .. | .. | ..              | 187               |
| Less No. of inconclusive tests owing to deaths of guinea pigs from intercurrent infection | .. | .. | ..              | 21                |
|                                                                                           |    |    |                 | <hr/> 166 <hr/>   |
|                                                                                           |    |    |                 |                   |
|                                                                                           |    |    | No.             | Per cent.         |
| No. of Samples found to contain tubercle bacilli                                          | .. | .. | 15              | 9.6               |
| No. of Samples found <i>not</i> to contain tubercle bacilli                               | .. | .. | 151             | 90.4              |
|                                                                                           |    |    | <hr/> 166 <hr/> | <hr/> 100.0 <hr/> |

The percentage of samples found to contain tubercle bacilli has therefore increased from 7.0 per cent. in 1928 to 9.6 per cent. in 1929.

The above-mentioned 15 positive samples were from milk produced at 14 farms within the Administrative County, and every bovine animal at those farms was examined by the appropriate part-time County Veterinary Surgeon, with the following results :—



|                                                                                                                                               |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----|
| No. of Bovine Animals examined .. .. .                                                                                                        | 652 |
| No. of Samples of Milk examined microscopically (3 positive) ..                                                                               | 17  |
| No. of Samples of Milk examined biologically (7 positive and 1 inconclusive owing to death of guinea pig from intercurrent infection) .. .. . | 32  |
| No. of Cows submitted to Tuberculin Test (3 re-acted) ..                                                                                      | 7   |
| No. of Cows (from 10 farms) slaughtered under Tuberculosis Order, 1925 .. .. .                                                                | 14  |
| Number of Cows disposed of otherwise .. .. .                                                                                                  | 2   |

A summary of the post-mortem results is given below :—

|                                            | Udder<br>affected. | Udder<br>not affected. | Total. |
|--------------------------------------------|--------------------|------------------------|--------|
| No. found to be Tuberculous (advanced)     | 3                  | 1                      | 4      |
| No. found to be Tuberculous (not advanced) | 5                  | 5                      | 10     |
|                                            | —                  | —                      | —      |
|                                            | 8                  | 6                      | 14     |
|                                            | —                  | —                      | —      |

The following outstanding features have been extracted from the Veterinary Surgeons' reports :—

*Farm No. 1.* 60 bovines were examined. 4 were found to be affected with tuberculosis, 1 advanced and 3 not advanced.

*Farm No. 4.* 43 bovines were examined. 13 individual, group and bulk samples of milk had to be examined biologically. 2 cows were found to be affected with tuberculosis not advanced. 1 cow had been sold to a neighbouring farmer and then re-sold in a public market. It was traced to a slaughterhouse in a County Borough in an adjoining County, and enquiries elicited the fact that 2 cows which had been killed in that slaughterhouse on the day in question were found to be affected with tuberculosis, and had been dealt with under the Public Health (Meat) Regulations, 1924.

In respect to the 4 farms where the Veterinary Surgeons did not find any cow to be affected with tuberculosis, the reports indicated the following :—

*Farm No. 3.* 2 cows were suspected. Samples of milk were examined microscopically with negative results. Biological examinations gave 1 negative result and 1 inconclusive result, owing to the death of the guinea pig from intercurrent infection.

*Farm No. 6.* 6 cows had been slaughtered as fat cows between the taking of the sample by the Food and Drugs Inspector, and the inspection by the Veterinary Surgeon. 4 cows were suspected, but samples of milk from these cows proved to be negative biologically.

*Farm No. 8.* 1 cow was suspected. The tuberculin test was applied but the cow did not re-act.



*Farm No. 12.* Farmer is a dealer. At the time of the Veterinary Surgeon's visit, no cow on the farm had been there longer than a fortnight. Since the sample of milk was taken by the Food and Drugs Inspector, 6 or 7 fat cows had been sold for slaughter.

SECTION 4. During the year 7 notifications were received under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, 6 being from local Medical Officers of Health in the Administrative County and 1 from a local Medical Officer of Health for an Urban District in the County of Lincolnshire, to the effect that biological examinations of milk from 8 farms within the County of Essex had revealed the presence of tubercle bacilli. Every bovine animal at the 8 farms was examined by the appropriate part-time County Veterinary Surgeon, with the following results :—

|                                                                                                                                       |    |    |    |     |
|---------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----|
| No. of Bovine Animals examined                                                                                                        | .. | .. | .. | 319 |
| No. of Samples of Milk examined microscopically (1 positive)                                                                          | .. | .. | .. | 3   |
| No. of Samples of Milk examined biologically (1 positive and 1 inconclusive owing to death of guinea pig from intercurrent infection) | .. | .. | .. | 17  |
| No. of Cows submitted to Tuberculin Test (1 re-acted)                                                                                 | .. | .. | .. | 2   |
| No. of Cows (from 6 farms) slaughtered under Tuberculosis Order, 1925                                                                 | .. | .. | .. | 8   |
| No. of Cows disposed of otherwise                                                                                                     | .. | .. | .. | 2   |

A summary of the post-mortem results is given below :—

|                                            | Udder<br>affected. | Udder<br>not affected. | Total. |
|--------------------------------------------|--------------------|------------------------|--------|
| No. found to be Tuberculous (advanced)     | —                  | .. 3                   | .. 3   |
| No. found to be Tuberculous (not advanced) | 3                  | .. 2                   | .. 5   |
|                                            | —                  | —                      | —      |
|                                            | 3                  | .. 5                   | .. 8   |
|                                            | —                  | —                      | —      |

At one of the 6 farms, it was found that a cow had been sold to a neighbouring farmer as she had "gone dry." The Veterinary Surgeon traced this cow and found she was "emaciated and coughing." She was therefore destroyed under the Tuberculosis Order, 1925.

In respect to the two farms where the Veterinary Surgeons did not find any cow to be affected with tuberculosis, the reports indicated the following :—

*Farm E.* "There were only 5 cows at the farm and they looked particularly well and the udders were quite healthy, excepting one cow which had a very slight induration of one quarter." A sample of milk from this cow was examined microscopically and biologically with negative results. A further sample of the bulk supply is being obtained.

*Farm G.* This farm has a tuberculin tested herd of 74 cows to which the intradermal test had been automatically re-applied two days before positive sample was obtained from the retailer. 11 cows re-acted, 2 of which were sold in the nearest market and could not be traced. It was therefore thought advisable to take samples of milk from the remaining 9 cows and from the bulk supply at the farm for biological examination with the following results :—



9 cows .. 8 negative.  
1 inconclusive owing to death of guinea pig  
from intercurrent infection "but prob-  
ably negative."

Bulk supply Negative.

The Veterinary Surgeon reported that "all the cows were free from clinical symptoms of tuberculosis and are in good health."

It transpired subsequently that the retailer in question dealt "in two supplies of milk" one being from a Lincolnshire farm and one from this Essex farm. A cow was found at the former farm to be suffering from "tuberculosis with a chronic cough" and was slaughtered under the Tuberculosis Order, 1925, resulting in the local Medical Officer of Health intimating that he was "quite satisfied that the solution of the difficulty lay at this end."

TUBERCULOSIS ORDER, 1925. The Agricultural Committee are responsible for the administration of this Order, and have taken active steps to eliminate and slaughter tuberculous cows, as will be seen from the following figures, which have been kindly furnished by the Clerk of the County Council :—

|                                                        | 1928.  | 1929.  |
|--------------------------------------------------------|--------|--------|
| No. of animals examined by Veterinary Surgeons .. .. . | 28238  | 24611  |
| No. of animals slaughtered under the Order .. .. .     | 849    | 778    |
| No. of such animals found on post-mortem to be—        |        |        |
| (a) Not Tuberculous .. .. .                            | 1      | 0      |
| (b) Tuberculous—not advanced .. .. .                   | 399    | 406    |
| (c) Tuberculous—advanced .. .. .                       | 449    | 372    |
| Compensation paid by County Council                    | £4,242 | £4,302 |
| Salvage .. .. .                                        | £1,161 | £1,595 |

It will be seen from the above figures that 47.8 per cent. of the cows slaughtered under the Tuberculosis Order were found on post-mortem examination to be in an advanced stage of the disease. This percentage is therefore less than the figure (52.8 per cent.) for the previous year. There has also been a reduction in the number of animals examined by the Veterinary Surgeons—24,611 in 1929 as compared to 28,238 in 1928.

The cost of compensation paid to the farmers by the County Council continues at a high figure, but there has also been an appreciable increase in the amount of salvage obtained. Some portions of those carcasses which were not in advanced stage of the disease are regarded as fit for human consumption and if sold for that purpose naturally command a better salvage price. In August, 1925, the Ministry of Agriculture and Fisheries intimated by Circular letter No. 18 that representations had been made to the effect "that steps should be taken to ensure that the carcasses of animals "slaughtered under the Tuberculosis Order, 1925, should not be disposed of for human



"consumption without adequate safeguards being designed for the protection of the public health." Tuberculosis Order, 1925 (No. 2) was therefore issued on 5th August, 1925, providing that, in any case in which the carcase is intended to be used for human consumption, a copy of the notice of intended slaughter sent to the owner shall also be sent to the appropriate officer of the Sanitary Authority of the district, together with a statement of the address of the premises on which, and the time at which, it is intended to carry out the slaughter. The Order further provides that in any such case the carcase shall not be removed from the premises or be disposed of for human consumption without the consent in writing of the Medical Officer of Health, or other competent Officer of the Sanitary Authority.

### WATER SUPPLIES.

Five Local Sanitary Authorities made application to the Ministry of Health for approval to loans for works of water supply, and as a result the following public inquiries were held during the year :—

| Date of Inquiry. | Local Sanitary Authority. | Parish.                                                                                                                                    | Amount of Loan. | Purpose.                                                        |
|------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------|
| 1929.            |                           |                                                                                                                                            | £               |                                                                 |
| April 16th       | Maldon R.                 | Althorne<br>Cold Norton<br>Hazeleigh<br>Latchingdon<br>Mayland<br>Mundon<br>North Fambridge<br>Purleigh<br>Stow Maries<br>Woodham Mortimer | 6,500           | Works of Water Supply                                           |
| April 17th       | Shoeburyness U.           | —                                                                                                                                          | 4,480           | Provision of Reservoir                                          |
| June 5th         | Saffron Walden R.         | Hadstock                                                                                                                                   | 200             | Sinking a Borehole                                              |
| September 5th    | Chelmsford B.             | —                                                                                                                                          | 23,309          | Excess expenditure on Works of Water Supply                     |
| September 24th   | Dagenham U.               | —                                                                                                                                          | —               | For power to adopt Section 6 of Public Health (Water) Act, 1878 |
| October 23rd     | Saffron Walden B.         | —                                                                                                                                          | 400             | Sinking an experimental Borehole                                |
|                  |                           | TOTAL                                                                                                                                      | ... £34,889     |                                                                 |

### General Water Supplies.

During the early part of the year surprise samples were taken of various public water supplies in the Administrative County in order to ascertain whether each supply



was "pure and wholesome," as required by Section 35 of the Waterworks Clauses Act, 1847. The results of the analyses of these samples are given below :—

| Date.      | Supplied by.                        | Results.                                                                                                                                                                                                                                           |
|------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1929.      |                                     |                                                                                                                                                                                                                                                    |
| Feb. 11 .. | Maldon B. ..                        | A soft, faintly alkaline water of a high standard of organic and bacterial purity. Contains a large amount of solids in solution, including a high proportion of Sodium Chloride, but is nevertheless suitable for drinking and domestic purposes. |
| Feb. 12 .. | Maldon R. at Purleigh               | Of great organic and bacterial purity.                                                                                                                                                                                                             |
| Mar. 7 ..  | Braintree R. at Bocking             | A very hard water of the highest degree of organic and bacterial purity.                                                                                                                                                                           |
| Mar. 7 ..  | Private Company at Silver End .. .. | A very hard water of the highest degree of organic and bacterial purity.                                                                                                                                                                           |
| Mar. 22 .. | Burnham-on-Crouch U.                | A soft water of a very high degree of organic and bacterial purity.                                                                                                                                                                                |
| Apr. 3 ..  | Chelmsford B. ..                    | A moderately hard water of a high degree of organic and bacterial purity.                                                                                                                                                                          |
| Apr. 11 .. | Dunmow R. at Dunmow                 | A clear and bright neutral water of a high standard of organic and bacterial purity. It is hard and the greater part of the hardness is temporary in character.                                                                                    |

**SOUTHEND WATERWORKS COMPANY.** The last portion of the Company's Scheme as authorised by the Southend Waterworks Act, 1924, namely the utilization of the River Blackwater as an additional source of supply, was completed during the summer of 1929, and was used during the weeks ended 29th July, 5th August and 9th September. Apart from four or five of the summer months, however, the Company are able to obtain ample supplies from the two other sources, authorised by the Act, namely, the Rivers Chelmer and Ter. During the year, constructional work necessitated a temporary stoppage of supplies from the Langford Works on two occasions for about 48 hours, when some of the Company's deep wells had to be used again to maintain the supply of water.

According to the Annual Report of the Medical Officer of Health for the County Borough of Southend-on-Sea, "the water supplied has at all times been clean, bright and of a high degree of bacterial purity . . . . . On September 9th, widespread complaints were received as to the unpleasant taste which the water had developed and enquiry showed that this was due to a growth of algae in one of the storage reservoirs. The Company at once took steps to run the contents of the reservoir to waste and the unpleasant taste gradually disappeared though complaints continued to be received for several weeks, doubtless as a result of the algae having been carried into the Purification Works before the affected water had been diverted. The Company are carrying out investigations with the object of ascertaining what steps are possible to prevent a recurrence of the trouble in future summers."



## Rural Water Supplies.

The prolonged drought experienced in Essex during the spring and summer of 1929 necessarily affected the rural water supplies, and accordingly on 1st October, 1929, a questionnaire was addressed to the local Medical Officers of Health for the 17 Rural Districts in the County of Essex. It was felt that the exceptional conditions offered a good opportunity to ascertain the real position in respect to water supplies in each parish.

The rainfall in inches as recorded at the County Meteorological Station at Chelmsford during the months of January to September, 1929, is compared below with the figures for the same period in 1928, which had about the average rainfall :—

| Month.       |    | Rainfall in inches. |       |
|--------------|----|---------------------|-------|
|              |    | 1928.               | 1929. |
| January ..   | .. | 3.26                | 1.28  |
| February ..  | .. | 1.25                | 0.45  |
| March ..     | .. | 2.14                | 0.03  |
| April ..     | .. | 0.81                | 1.79  |
| May ..       | .. | 1.85                | 1.78  |
| June ..      | .. | 2.33                | 0.58  |
| July ..      | .. | 1.74                | 1.71  |
| August ..    | .. | 2.72                | 1.44  |
| September .. | .. | 0.75                | 0.73  |
|              |    | —                   | —     |
| Total ..     | .. | 16.85               | 9.79  |
|              |    | —                   | —     |

It will be seen that 7.06 inches less rain fell in the period for 1929 than in the same period for 1928.

The above-mentioned questionnaire may be summarised as follows :—

- (1) Give Source of Public Supply (if any).
- (2) Has the Public Supply failed, been depleted, or been maintained.

A summary of the replies received from the local Medical Officers of Health, including other appropriate information, is given on page 46. It will be seen there are :—



152 Parishes with a piped supply, chiefly in populous parts, from public mains.

121 Parishes with other sources of public supply, *e.g.*, shallow wells, springs, &c.

74 Parishes without a public supply and dependent upon private wells, springs, ponds, rainwater, &c.

---

347 Total No. of Parishes.

---

This return indicates that 21 per cent. of the Parishes in the Rural Districts are without a public water supply of any kind, and are entirely dependent on shallow wells, rainwater, springs and ponds; the areas chiefly affected being Lexden and Winstree (25 Parishes), Ongar (10), Tendring (10), Dunmow (5), Saffron Walden (5), Belchamp (4), Rochford (4).

In respect to the above mentioned public supplies, the replies received indicate that in—

6 Parishes the public supply failed wholly or partly.

23 Parishes the public supply was depleted.

244 Parishes the public supply was maintained.

For the purpose of this report, the term "public supply" includes supplies provided by the Rural Councils or Water Companies from public mains to houses or stand-pipes, shallow wells, deep wells, springs, &c. (Shallow wells are those which are sunk in permeable soil to the first impervious stratum and their depth varies in different localities, according to the geological formation. Deep wells are those which are bored through the first impervious stratum at least to the deeper water-bearing strata, and their depth varies according to the local geological conditions). It will be realised that parishes vary, some being scattered whilst others have centres of population with outlying farms and houses. A public supply whether from mains, wells or springs, often serves only a relatively small group of cottages, but it has been assumed to be a public supply for the whole parish. No data are available showing how many houses in each Parish depend entirely on private supplies.

A perusal of the attached summary shows that the whole position is governed by the proportion of shallow wells to deep wells and public mains whether public or private. In the Saffron Walden area, for example, where water is obtained chiefly from deep wells in the chalk or springs, each public supply was maintained; similarly the public supply was maintained in the Rural Districts of Billericay, Epping, Maldon, Orsett, Rochford, Romford, Stansted and Tendring, where public supplies are provided by Rural Councils or Water Companies. Undoubtedly, there has been an acute shortage of water in those areas dependent upon shallow well and rainwater supplies.



This matter as affecting England and Wales, has already been investigated by the Advisory Committee on Water appointed by the Ministry of Health, who in March, 1929, issued a report, extracts from which were included in the Annual Report for 1928, and are of sufficient interest and importance that they are reprinted below :—

- (1) There has been substantial progress in recent years in the provision of rural water supplies, but there is still a long way to go before conditions can be reported as generally satisfactory.
- (2) Cost is the principal obstacle. The power which the Local Government Bill proposes to confer upon County Councils and Rural District Councils, to contribute out of their general funds in aid of parochial water supplies, will, if exercised, certainly help. But in a number of cases more might also be fairly expected of the consumers. Water charges are usually based on rateable value. The rateable value of rural cottages is low. A charge which may seem exorbitant when stated as a percentage of rateable value may be almost ridiculously low when set out as a lump sum.
- (3) Piped supplies are being steadily extended, but it is Utopian to expect them in every place ; and, where they are not available, more attention needs to be devoted to improving supplies from public wells, pumps, springs, and rain water tanks. Local Authorities require more powers for this purpose, including the power, which they do not at present possess, to charge for supplies of this kind provided by them.
- (4) Experience in a number of dry districts shows that by providing adequate storage, rainwater can be advantageously utilised to a larger extent, and recommendations are made to this end.
- (5) Suggestions are also made on a number of other matters for removing difficulties and defects arising out of the existing statutory provisions.

The powers referred to in No. (2) above were duly incorporated in the Local Government Act, 1929, so that County Councils may, under Section 57, agree to contribute towards the expenditure incurred by a Local Sanitary Authority in the provision or maintenance of a supply of water or in the improvement of an existing supply of water.

On 24th October, 1929, the first application for a contribution from the County Council under this Section was received from the Lexden and Winstree Rural District Council who had applied to the Ministry of Health for sanction to borrow £12,600 for a scheme of water supply for the Parishes of Abberton, Langenhoe, Peldon, Great and Little Wigborough, Salcot and Virley. This application was still under consideration at the end of the year.



SUMMARY OF REPLIES regarding Water Supplies received from Local Medical Officers of Health for Rural Districts in the Administrative County of Essex.

(NOTE.—“Public Supply” includes supplies from public mains to houses, standpipes, shallow wells, deep wells, springs, and other sources provided by the Rural Council or Water Company, whether for a portion or the whole of each Parish).

| Rural District.     | Population. Estimated, 1928. | Total No. of Parishes. | No. of Parishes with |                      | No. of Parishes without Public Supply. | No. of Parishes where Public Supplies |                |                          | Remarks.                                                                                                                                                          |
|---------------------|------------------------------|------------------------|----------------------|----------------------|----------------------------------------|---------------------------------------|----------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |                              |                        | Public Piped Supply. | Other Public Supply. |                                        | were maintained.                      | were depleted. | failed wholly or partly. |                                                                                                                                                                   |
| (1)                 | (2)                          | (3)                    | (4)                  | (5)                  | (6)                                    | (7)                                   | (8)            | (9)                      | (10)                                                                                                                                                              |
| Belchamp            | 4,158                        | 18                     | —                    | 13                   | 5                                      | 6                                     | 5              | 2                        | One supply controlled. No complaints of abnormal shortage.                                                                                                        |
| Billericay          | 35,920                       | 24                     | 24                   | —                    | —                                      | 24                                    | —              | —                        | A few isolated houses still dependent on wells.                                                                                                                   |
| Braintree           | 20,150                       | 23                     | 7                    | 15                   | 1                                      | 15                                    | 7              | —                        | Wells have been improved and deepened and pump junctions lowered.                                                                                                 |
| Bumpstead           | 2,284                        | 6                      | —                    | 6                    | —                                      | 4                                     | —              | 2                        | Clay wells failed. Water carted to part of a village for past two months.                                                                                         |
| Chelmsford          | 28,140                       | 28                     | 13                   | 14                   | 1                                      | 25                                    | 2              | —                        | Two public supplies augmented from mains of Southend Waterworks Co.                                                                                               |
| Dunmow              | 15,370                       | 25                     | 4                    | 16                   | 5                                      | 17                                    | 1              | 2                        | Chalk water level fallen in two populous centres. Occupants of one hamlet have to carry drinking water a long distance; ponds failed.                             |
| Epping              | 16,830                       | 15                     | 15                   | —                    | —                                      | 15                                    | —              | —                        | Shallow wells failed generally.                                                                                                                                   |
| Halstead            | 9,910                        | 16                     | 5                    | 9                    | 2                                      | 9                                     | 5              | —                        | —                                                                                                                                                                 |
| Lexden and Winstree | 18,250                       | 34                     | 2                    | 7                    | 25                                     | 8                                     | 1              | —                        | Great shortage has been experienced. Council had to cart water to many parishes where rain and pond supplies failed, for distances varying from one to ten miles. |
| Maldon              | 16,610                       | 32                     | 19                   | 11                   | 2                                      | 30                                    | —              | —                        | Public supplies except in three parishes augmented from mains of Southend Waterworks Co.                                                                          |
| Ongar               | 10,350                       | 26                     | 6                    | 10                   | 10                                     | 16                                    | —              | —                        | Many private wells failed and water had to be fetched from a distance.                                                                                            |
| Orsett              | *26,720                      | 13                     | 12                   | —                    | 1                                      | 12                                    | —              | —                        | Rainwater storage wells and tanks depleted.                                                                                                                       |
| Rochford            | *31,200                      | 18                     | 12                   | 2                    | 4                                      | 14                                    | —              | —                        | —                                                                                                                                                                 |
| Romford             | 13,680                       | 7                      | 7                    | —                    | —                                      | 6                                     | 1              | —                        | —                                                                                                                                                                 |
| Saffron Walden      | 9,610                        | 25                     | 4                    | 16                   | 5                                      | 20                                    | —              | —                        | Warning notices posted on all public supplies during summer.                                                                                                      |
| Stansted            | 6,838                        | 10                     | 5                    | 2                    | 3                                      | 6                                     | 1              | —                        | One parish badly off, all wells being very low.                                                                                                                   |
| Tendring            | 23,470                       | 27                     | 17                   | —                    | 10                                     | 17                                    | —              | —                        | Very few private wells have actually become dry. No serious shortage.                                                                                             |
| Totals              | 289,490                      | 347                    | 152                  | 121                  | 74                                     | 244                                   | 23             | 6                        |                                                                                                                                                                   |

\*Includes populations of Urban Districts recently constituted.



## MOSQUITOES.

A perusal of the Annual Reports which have already been received for the year 1929 from the local Medical Officers of Health indicate that mosquito control work is being continued where it is required. The following are a few typical extracts from such reports :—

*Brightlingsea U.* “ These were numerous, but spraying their breeding places with paraffin has kept their numbers down. One large breeding place was untreated, as the owner refused permission. Notices asking the householders to kill mosquitoes found in their houses during the winter have been issued.”

*Frinton-on-Sea U.* “ Owing to the precautionary measures recently taken against Mosquitoes, there were comparatively few in the town and fewer complaints than usual made about poisonous bites.”

*Woodford U.* “ Numerous ponds exist, particularly upon the forest land and on the high grounds of Woodford Green and Woodford Bridge. As these are suitable places for the breeding of mosquitoes, the ponds are sprayed at frequent intervals between the months of April and November. Several private ponds have by the consent of the owners been also treated.”

*Epping R.* “ Efforts have been made during the year to combat the mosquito nuisance. Ponds, ditches and other likely places have been searched for mosquito larvae, and when found these have been subjected to microscopical examination for the purpose of identification. *Anopheles maculipennis* and the *Theobaldia annulata* were found in a large number of cases and the water from which they were taken was sprayed with paraffin oil. This last action was only taken when larvae of these aforementioned and other dangerous species were found. Satisfactory results have been obtained but the work is somewhat minimised by the inactivity of adjoining Authorities.”

## TRADE, HOUSE AND OTHER REFUSE.

Two Local Sanitary Authorities made application to the Ministry of Health for approval to loans for works of refuse disposal, the following public inquiries being held in connection therewith :—

| Date of Inquiry. | Local Sanitary Authority. | Amount of Loan. | Purpose.                                    |
|------------------|---------------------------|-----------------|---------------------------------------------|
| 1929.            |                           | £               |                                             |
| February 21st    | .. Tilbury U.             | .. 5,850        | .. Refuse Disposal Plant.                   |
| November 1st     | .. Chingford U.           | .. 3,500        | .. Reconstruction at Refuse Disposal Works. |

**LONDON REFUSE.** In April, 1929, the Public Health and Housing Committee asked the Ministry of Health to afford the County Council an opportunity of giving evidence before the Departmental Committee on London Cleansing. On 2nd July, 1929, the County Council approved of the recommendation that



Col. F. H. D. C. Whitmore and the County Medical Officer of Health be appointed to give such evidence, and the Clerk of the County Council addressed communications to the Clerks of the County Councils of Kent, Surrey, Middlesex and Hertford with a view to joint action being taken if necessary.

By invitation, Colonel Whitmore and the County Medical Officer of Health tendered the following evidence to the Departmental Committee on 15th July, 1929 :—

Colonel Whitmore will state as follows :—

1. That for the past eight years he has been a constant user of the London-Tilbury Road which runs close to the north bank of the River Thames and has experienced the discomfort of the smells, smoke, dust and paper which are carried by the wind from the refuse dumps which lie between the road and the river bank.

2. In February, 1903, Colonel Whitmore was appointed a Commissioner of Sewers for the levels of Rainham and Fobbing, and in his capacity as a Commissioner, has frequently visited the refuse dumps which are infested with rats and flies and has seen the filth—liquid and solid—which is deposited there.

3. The ground upon which the deposits have been placed is alluvium upon peat and the weight of the dumps has the effect of constricting or closing up the Commissioners' fresh water drainage channels.

4. Foul and poisonous matter drains from the dumps into the Commissioners' channels, badly polluting the water and rendering it unfit for the use of cattle.

5. In the early part of the year 1926, Colonel Whitmore, accompanied by Mr. H. W. Looker, then Member of Parliament for South-East Essex, Sir Algernon Boyle and the Marsh Bailiff, visited the dumps at Rainham and a sample of liquid which was being discharged into the Wennington Level Watercourse was taken for analysis and a copy of the Analyst's certificate which stated that "this fluid is obviously unfit to be discharged into a watercourse," was sent to the Ministry of Health.

6. About the same time he also visited a refuse dump at Tilbury with Mr. Looker, and there saw all the people of the neighbourhood scavenging on the filth and sorting and taking it away.

7. A constant watch has to be kept by the Marsh Bailiff in order to counter the damage which might result from rats weakening the sea walls and also to prevent pollution of their water courses on the levels.

8. The weight of the dump on the Port of London Authority property has caused and is causing considerable damage to a water course situated within the Port of London Authority's property.



9. Colonel Whitmore has read the report of Mr. J. C. Dawes, the Public Cleansing Inspector of the Ministry of Health, and agrees with the facts and statements contained therein, which relate to the County of Essex.

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William Arthur Bullough will state as follows :—

1. I am a Master of Science and a Bachelor of Medicine and Surgery, and since 1st April, 1919, I have held the post of Medical Officer of Health for the Administrative County of Essex.

2. The question of the dumping of house and other refuse from London in the Administrative County of Essex has been considered at varying intervals in the past by the County Public Health and Housing Committee. In 1910, the Essex County Council passed the following resolution :—

“ That the Public Health and Housing Committee be requested to  
 “ enquire into the nature and extent of the deposits within the Adminis-  
 “ trative County of Essex of house and other refuse from populous places  
 “ outside the County and as to the effect of such deposits upon the health  
 “ and comfort of the population in the vicinity and to consider how far  
 “ it might be possible to regulate, limit, or even prohibit altogether,  
 “ such deposits within the County.”

3. My predecessor (Dr. John C. Thresh), by request, made detailed enquiries and prepared a special report entitled “ Report on the Importation of London House Refuse, Manure, &c., into Essex,” dated 16th February, 1911. He found that the waste matters so imported and dumped on the Essex marshes consisted of house refuse, road scrapings, gully sludge, market garbage, trade refuse, &c., causing nuisances to arise in various ways, namely, unloading of barges into trucks; tipping of trucks on embankments; effluvium from fermenting refuse; smoke from burning refuse; plague of flies in summer; superabundance of rats; dirty paper, &c., scattered by winds; children playing or working on tips and becoming flea infested; alleged infection of children (chiefly) by infected material amongst the rubbish; pollution of marsh ditches. He ascertained that the Kent County Council were also anxious that power should be obtained to prevent any district from sending its house refuse into any other district without having obtained the sanction of the Sanitary Authority concerned. This special report was considered by the County Public Health and \*Housing\* Committee and the Essex County Council, but owing to lack of powers no effective measures were possible.

4. In my Annual Reports for the years 1919, 1921, 1922, 1925 and 1927, which are circulated to the Ministry of Health and to each local Medical Officer of Health in the County of Essex, I made special reference to the further complaints which had been received regarding these offensive dumps. For the information of the local Medical Officers of Health, I included in the Reports for 1922 and 1925 full particulars of the precautions recommended



by the Ministry of Health in 1922 for abating and preventing nuisances arising from refuse tips. In the Report for 1925, I stated that "it is high time that some better means were devised to prevent London, particularly its wealthy Boroughs, dumping refuse in another Authority's area."

5. On 25th July, 1924, I accompanied a Medical Officer from the Ministry of Health to various dumps on the north bank of the River Thames. This joint inspection arose from the fact that the London County Council had made representations to the Ministry of Health regarding the dump at South Hornchurch which was interfering with the amenities of the Becontree Estate. This inquiry revealed the fact that London refuse was being dumped in Essex at the rate of 548,000 tons per annum.

6. By letter, dated 8th February, 1926, the Clerk of the Essex Sewers Commission, Rainham, and other levels, referred to "the continuous extension in height and weight of the dust and refuse deposits upon their areas." He also pointed out the following :—

- (a) That the weight of these deposits had the effect of constricting or closing up the Commissioners' fresh water drainage channels.
- (b) That the deposits are infested with rats and flies, the former of which undermine the river defences, and both are a nuisance and menace to health.
- (c) That smells, smoke, dust and paper are carried by the wind into populated districts, causing much annoyance to the inhabitants.
- (d) That the drainage from the dumps is of a foul and poisonous character, and badly pollutes the Commissioners' channels, rendering the water therein unfit for the use of cattle.

7. The Commissioners suggested the advisability of a conference between themselves, the Essex County Council, the Port of London Authority, the Local Sanitary Authorities, and if possible, the Members of Parliament for the district, with the object of making strong representation upon the matter to the proper official authority for securing a remedy.

8. The County Public Health and Housing Committee informed the Essex Sewers Commissioners that they were willing to send two representatives, together with the appropriate officers, to the conference. No further communication was received from the Commissioners of Sewers with regard to the proposed conference.

9. By letter, dated 4th June, 1927, the London County Council's Public Health Department stated that for some years the London County Council have been concerned at the large refuse deposits made in the neighbourhood of its housing estate at Becontree, and as to the possible effect of these deposits on the health of the tenants. As a result, on 22nd June, 1927, the Medical Officers of Health and Sanitary Inspectors from the Essex County Council, Hornchurch Urban Council and Dagenham Urban Council accom-



panied a Medical Officer and Inspector from the London County Council upon an inspection of the refuse dumps in the Hornchurch Urban District. These are situated at South Hornchurch, about 12 miles east of Charing Cross, and 1—1½ miles to the south of the new housing estate at Becontree.

10. It was again found that the likely nuisances from these dumps were offensive smells, dust, flies, rats, and pollution of ditches and water courses. Refuse of a repulsive nature was arriving daily in barges, being lifted into trucks by mechanical appliances and then hauled by steam engines to the dumping surface of the tip. The faces of these tips were being constantly raked over by rag pickers, salvaging such articles as rags, bones, bottles and small coke. All the "active" parts were smouldering, and at times emitted dense volumes of smoke. The whole process was generally unsightly and insanitary. As a result of this joint inspection, it was agreed as follows :—

- i. That the present system of dumping London refuse on the north bank of the River Thames, at Hornchurch, is a menace to the health of the growing population in that neighbourhood.
- ii. That the problem of dealing with this refuse is a difficult and complicated one and, having regard to all the circumstances, we are of the opinion that the most satisfactory solution would be arrived at by the Ministry of Health holding a public enquiry.
- iii. That we should report accordingly to our respective authorities.

11. Representations were made accordingly to the Ministry of Health, who subsequently intimated that they had instructed their Cleansing Inspector, Mr. J. C. Dawes, to investigate and report.

12. I have carefully perused the report, dated March, 1929, which was issued by the Cleansing Inspector, Mr. J. C. Dawes, upon "An Investigation into the Public Cleansing Service in the Administrative County of London."

13. It is not necessary for me to repeat the facts and statements referring to Essex which are included in that report, and with which as a result of personal observations, I am in entire agreement. In particular, I fully concur in the opinion expressed by Mr. Dawes to the effect "that the local authorities in whose areas these dumps are situated have strong cause for complaint against the forwarding boroughs, and that this system should not be allowed to continue." To my mind it is somewhat lamentable that the largest city in the world is still unable to set an example by disposing of its refuse in such a manner as not to be a nuisance to anyone.

14. In conclusion I am of opinion that the present system of dumping London refuse in the Administrative County of Essex, particularly at South Hornchurch, is a menace to health.

15. I would strongly urge the provision of additional legislation, which would prevent a Local Sanitary Authority from dumping refuse outside its own area without the knowledge and consent of the Local Sanitary Authority



concerned, subject to an appeal to the Ministry of Health, and would require them to give an assurance that such dumping would be conducted on lines approved by the Ministry of Health.

In submitting the above evidence, emphasis was laid upon the fact that an early remedy of the existing unsatisfactory methods was desired. It was contended that such a remedy was to be found in the adoption of controlled dumping, which has been practised so successfully in Bradford. The Chairman of the Committee addressed the following question to the County Medical Officer of Health :—" We may take it, ' therefore, that whilst you thoroughly condemn the existing method of dumping ' London refuse, you do not exclude the possibility of a satisfactory system of dumping, ' and therefore, if such a satisfactory system were adopted, your objection would then ' be met." The County Medical Officer of Health replied in the affirmative.

CONFERENCE. The Essex County Council deemed it necessary to convene a Conference of representatives of County Councils who were directly affected by the present system of the disposal of London's refuse. This conference was held on 25th September, 1929, at the Middlesex Guildhall, Westminster, and was attended by representatives of the County Councils of Buckinghamshire, Essex, Hertfordshire, Kent and Middlesex. Alderman H. E. Brooks, Chairman of the Essex County Council, presided, and referred to the Report of Mr. J. C. Dawes, Inspector of Public Cleansing under the Ministry of Health. He said that that report had in no measured terms condemned the outrageous scandal of the dumping by the Metropolitan Boroughs of London of millions of tons of household refuse on the north shore of the Thames and at various places within the County of Essex. With the development of the London County Council Estate at Becontree and of the industrial area on the north shore of the Thames, the population was getting nearer to these sources of insanitary conditions, and the position had become extremely serious. London at present was dumping nearly  $1\frac{1}{2}$  million tons of refuse a year on the north shore. One of the dumps was already 90 feet high. Spontaneous combustion occurred, and clouds of smoke with a nauseating smell drifted to the village of Rainham.

Alderman Brooks maintained that no local authority had a right to create a nuisance of that kind within the area of another authority. He considered that local authorities should have the absolute right to prohibit entirely the dumping of refuse by another authority. Some of the Metropolitan Borough Councils had provided dust destructors, and had dealt with their own refuse without annoying anybody else. Others had made arrangements with a contractor to take their refuse and did not care what became of it. The question was whether the County Councils should not unitedly bring pressure to bear on the Government to give them protection.

After considerable discussion, the following resolution, which was approved by the Essex County Council on 19th November, 1929, was passed :—

" That in the opinion of the County Council, a Local Authority should  
 " not be permitted to deposit by its servants, agents, or contractors, refuse  
 " or other rubbish outside its own area without the previous approval of the  
 " County Council and the District Council within whose area the refuse or  
 " rubbish is deposited, and subject to such conditions as may be prescribed



“ by such Councils, this restriction not to apply to ordinary stable manure  
 “ sent direct to a farm for agricultural purposes, and that in the event of a  
 “ County Council or Local Authority refusing consent, an appeal to lie to the  
 “ Minister of Health whose decision shall be final.

Also

“ That a copy of the foregoing resolution be forwarded to the Minister  
 “ of Health.”

On 28th September, 1929, a special article entitled “ London Refuse ” appeared in “ The Times ” and stated that “ during a tour this afternoon of some miles of the  
 “ Essex marshes between Barking and Purfleet, I saw a number of the smoking refuse  
 “ dumps that disfigure the north bank of the Thames at intervals, pollute the atmos-  
 “ phere for a mile or more northwards from the river, make life in the villages unpleasant,  
 “ and present the Essex County Council with what its Chairman, Alderman H. E.  
 “ Brooks, describes as ‘ an intolerable nuisance,’ against which powers of prohibition  
 “ are being sought.”

Excellent photographs were included in this issue of “ The Times ” depicting in a striking manner these unsatisfactory dumps, from the sides and summits of many of which clouds of nauseating smoke were arising from burning rubbish and drifting to the surrounding villages. The thanks of Essex are due to “ The Times ” for the excellent manner in which they assisted to create a favourable public opinion upon the need for preventing the continuance of this unsatisfactory method of dumping.

CONTROLLED DUMPING. Opportunity was taken during the year to visit Bradford, Yorkshire, on 12th July, 1929, in order to become acquainted with the hygienic method of the disposal of refuse by controlled dumping, which has been practised successfully by the Corporation since 1925. A detailed report thereon was submitted to the County Council in October, 1929, and a copy was supplied to every Medical Officer of Health and Senior Sanitary Inspector throughout the Administrative County. The following summary and general conclusions were included in the report :—

“ *Summary.* The solution of this problem has been obtained by order-  
 “ liness and by utilising nature. The system is so adaptable that there is no  
 “ excuse for any Local Sanitary Authority not bringing it into operation, no  
 “ matter how small the district or how large the area of the dumping ground.  
 “ Briefly, the practical points to be observed closely are :—

“ (a) Training and quiet but firm handling of workmen.

“ (b) Making careful survey of proposed dumping ground, marking it  
 “ out and deciding upon the object to be achieved, *e.g.*, terraced  
 “ gardens, grassed embankments, tennis lawns, &c.

“ (c) Making sure that as few open spaces as possible are left in the  
 “ dump so as to ensure solidity.

“ (d) Sealing of the surface and face of the dump at the end of each day.

“ (e) Insisting upon orderliness and tidiness throughout the whole  
 “ process.



*“ General Conclusions. The City of Bradford has successfully and economically solved the vexed question of the disposal of house and trade refuse, and by means of what was hitherto despised and discarded rubbish are beautifying and making useful areas which were hitherto regarded as insanitary and as eyesores to the localities concerned.*

*“ The same system of controlled dumping could be adopted with similar results by every Local Sanitary Authority, provided their responsible officers carefully studied the details of the scheme, and trained their workmen accordingly.*

*“ This system is the solution of many of the difficulties experienced in the disposal of London’s refuse.”*

Controlled dumping in one form or another has been adopted with successful results by some of the Local Sanitary Authorities in the Administrative County, notably at Barking U., Braintree U., Chelmsford B., Chingford U., Clacton-on-Sea U., Colchester B., Harwich B., Hornchurch U., Romford U., Billericay R., Chelmsford R., Rochford R. and Tendring R.

### **BLIND PERSONS ACT, 1920.**

The Essex County Association for the Care of the Blind has continued, by arrangement with the Essex Education Committee, to carry out the work under this Act. The Association renders regular reports on the work to the School Medical Sub-Committee of the Education Committee. Since taking over this work in May, 1928, great and continued progress has been made in that the register has been thoroughly scrutinized and brought up-to-date; there has also been a more complete scheme of home visiting and an augmented home teaching staff.

During the year delegates from the School Medical Sub-Committee have attended conferences on the Care of the Blind, held by the Statutory Authorities for this work in the greater London area.

The Home Workers Scheme continues to be supervised by the London Society for Teaching and Training the Blind with Headquarters at Swiss Cottage, which Society has received a grant from the Treasury for this purpose at the rate of £20 per home worker.

As far as possible full use is made of the London Workshops for the employment of such Blind Persons as can be therein employed.

Further progress has been made as follows :—

- (1) Re-arrangement for the financial scale of augmentation of home workers earnings.
- (2) Development of home teaching and social services including provision of social clubs.
- (3) Provision of more assistance for unemployable blind persons in financial need.



The position at the end of the year would appear to be as follows :—

The number of Blind Persons on the Register is 1,061, an increase of 69, showing that the Register is more complete and not necessarily an actual increase of blind persons. Of this number 719 are classed as unemployable, an increase of 57.

Twenty-five persons over sixteen years of age are shown as in training, an increase of 12 and 198 persons as in some employment, also an increase of 12 on the previous year. Of those in employment 12 are in workshops and 35 under the County home workers scheme, the remainder being in private employment or working on their own initiative; included in these are 71 under the supervision of St. Dunstons.

The augmentation of the Home Teaching Services in the Administrative County has raised the number of these teachers to seven, one of these being in the employment of the Colchester Society.

Whilst the Association, prior to the passing of the Local Government Act, 1929, carried out registration of blind persons under the Poor Law, the ultimate result of this Act, whereby the County Council assumes responsibility for all Poor Law Services, must eventually widen the scope of the Association's work.

From time to time the Assistant County Medical Officers have examined blind and suspected blind persons and furnished certificates as to the degree of blindness and suitability for training, &c.

### **LOCAL GOVERNMENT ACT, 1929.**

Another epoch in the story of the Public Health Service has commenced by the passing of the Local Government Act, 1929. Before that Act came into operation on 1st April, 1930, Boards of Guardians were entrusted with the care of a specific section of the community, for whom it was necessary to provide medical attendance, nursing attendance, infirmaries, convalescent homes, casual wards, workhouses, cottage homes, &c. On the other hand, County Councils and County Borough Councils have for some years been given increasing functions and duties which were closely allied to those performed by Boards of Guardians, but which had for their object the care of the health of the general population. These also necessitated the provision of medical and nursing services, hospitals, sanatoria, treatment centres, convalescent homes, &c. Unnecessary duplication and overlapping resulted which were not conducive to harmonious working between these two sets of Authorities, whose relationships had never been clearly defined. Further from a communal point of view the efficiency and adequacy of the various services were often impaired, as little or no reciprocal arrangements existed between the two sets of Authorities. The merging of these comprehensive services was long overdue, and has been achieved by the Act of 1929, under which Boards of Guardians ceased to function on 1st April, 1930, their duties, services and institutions being transferred to County Councils and County Borough Councils. These facilities are no longer restricted to a certain portion of the population or to definite districts within the County, but each



becomes complementary to the other and is available for every member of the population. It will probably take a little time for the so-called poor law taint or stigma to disappear, but already there are indications that it is not so acutely felt as was previously the case. For this and other reasons, however, it is evident that wherever possible ward blocks for treating sick persons in what are now known as Public Assistance Institutions should be separated (as far as circumstances permit) from the house patients, casuals, aged and infirm.

Each County Council and County Borough Council is now in a position to review the hospital provision of their area as a whole, to ascertain its limitations or possibilities, and to formulate a scheme whereby general hospital accommodation on modern lines will be within the reach of every member of the community.

Under Section 4 of the Act "the Council of every County and County Borough shall prepare, and within six months after the commencement of this Act submit to the Minister, a scheme . . . . . of the administrative arrangements proposed to be made for discharging the functions transferred to the Council under this Part (I) of this Act."

The Essex County Council's scheme, which was approved by the Minister of Health on 21st October, 1929, includes the establishment of a Public Assistance Committee consisting of 45 persons, of whom 30 shall be members of the County Council, including the Chairman and Vice-Chairman of the Council, and the remainder persons who are not members of the Council. At least 5 of the persons who are not members of the Council shall be women.

The Administrative County has been divided into 8 Guardians Committee areas, as shown below :—

| (1)<br>Name of Area. | (2)<br>Names of County Districts comprised<br>in the Area. | (3)<br>Estimated Population,<br>1928. |
|----------------------|------------------------------------------------------------|---------------------------------------|
| Braintree            | Braintree U. . . . .                                       | 8,298                                 |
|                      | Halstead U. . . . .                                        | 5,874                                 |
|                      | Witham U. . . . .                                          | 4,342                                 |
|                      | Belchamp R. . . . .                                        | 4,158                                 |
|                      | Braintree R. . . . .                                       | 20,150                                |
|                      | Bumpstead R. . . . .                                       | 2,284                                 |
|                      | Halstead R. . . . .                                        | 9,910                                 |
| Chelmsford           | Chelmsford B. . . . .                                      | 23,680                                |
|                      | Maldon B. . . . .                                          | 6,662                                 |
|                      | Brentwood U. . . . .                                       | 7,629                                 |
|                      | Burnham U. . . . .                                         | 3,619                                 |
|                      | Billericay R. . . . .                                      | 35,920                                |
|                      | Chelmsford R. . . . .                                      | 28,140                                |
|                      | Maldon R. . . . .                                          | 16,610                                |



| (1)<br>Name of Area. | (2)<br>Names of County Districts comprised<br>in the Area. | (3)<br>Established Population<br>1928. |
|----------------------|------------------------------------------------------------|----------------------------------------|
| Colchester           | Colchester B. .. ..                                        | 48,630                                 |
|                      | Harwich B. .. ..                                           | 11,830                                 |
|                      | Brightlingsea U. .. ..                                     | 4,310                                  |
|                      | Clacton U. .. ..                                           | 15,280                                 |
|                      | Frinton-on-Sea U. .. ..                                    | 2,165                                  |
|                      | Walton-on-Naze U... ..                                     | 3,040                                  |
|                      | West Mersea U. .. ..                                       | 2,216                                  |
|                      | Wivenhoe U. .. ..                                          | 2,282                                  |
|                      | Lexden & Winstree R. .. ..                                 | 18,250                                 |
|                      | Tendring R. .. ..                                          | 23,470                                 |
| Epping               | Epping U. .. ..                                            | 5,370                                  |
|                      | Waltham Holy Cross U. .. ..                                | 7,084                                  |
|                      | Epping R. .. ..                                            | 16,830                                 |
|                      | Ongar R. .. ..                                             | 10,350                                 |
| Saffron Walden       | Saffron Walden B. .. ..                                    | 5,661                                  |
|                      | Dunmow R. .. ..                                            | 15,370                                 |
|                      | Saffron Walden R. .. ..                                    | 9,610                                  |
|                      | Stansted R. .. ..                                          | 6,838                                  |
| Southern             | Ilford B. .. ..                                            | 113,500                                |
|                      | Barking Town U. .. ..                                      | 40,870                                 |
|                      | Dagenham U. .. ..                                          | 67,500                                 |
|                      | Hornchurch U. .. ..                                        | 15,790                                 |
|                      | Romford U. .. ..                                           | 26,680                                 |
|                      | Romford R. .. ..                                           | 13,680                                 |
| South Eastern        | Benfleet U. .. ..                                          | *11,200                                |
|                      | Canvey Island U. .. ..                                     | 6,500                                  |
|                      | Grays U. .. ..                                             | 18,070                                 |
|                      | Purfleet U. .. ..                                          | *10,041                                |
|                      | Rayleigh U. .. ..                                          | *6,120                                 |
|                      | Shoeburyness U. .. ..                                      | 6,255                                  |
|                      | Tilbury U. .. ..                                           | 18,100                                 |
|                      | Orsett R. .. ..                                            | *16,679                                |
|                      | Rochford R. .. ..                                          | *12,030                                |
| South Western        | Leyton B. .. ..                                            | 130,300                                |
|                      | Buckhurst Hill U. .. ..                                    | 5,496                                  |
|                      | Chingford U. .. ..                                         | 14,710                                 |
|                      | Loughton U. .. ..                                          | 6,787                                  |
|                      | Walthamstow B .. ..                                        | 122,400                                |
|                      | Wanstead U. .. ..                                          | 17,410                                 |
|                      | Woodford U. .. ..                                          | 22,100                                 |

\*Approximate figures.



In each of the above named Areas is constituted a Guardians Committee consisting of members nominated by the local Sanitary Authorities concerned, members of the County Council representing the areas concerned, and persons appointed by the County Council not being at the date of appointment elected members of the Council.

A Special Sub-Committee inspected the Poor Law Institutions to be taken over from the Boards of Guardians and issued a report, dated 26th March, 1930. In that report was included (1) a review of such institutions by the County Medical Officer of Health to which was attached a summary of the principal institutions, hospitals, &c., in each Guardians Committee area, and (2) a report by the County Architect on each poor law institution as a result of a brief survey of the existing structural arrangements and sanitary conditions of the buildings.



## PART II.

## TUBERCULOSIS.

Improvements in the County Tuberculosis Scheme during recent years have helped to make the scheme function more smoothly during 1929. The premises used in Walthamstow and Ilford as Tuberculosis Dispensaries were not considered to be satisfactory and during the year the County Council agreed to acquire new premises in these districts which will be opened in 1930. The building of the new Sanatorium at Black Notley was nearly completed and if the difficulties in obtaining staff can be overcome it is hoped to see this Sanatorium in full working order during 1930.

## Notifications.

A summary of notifications made on Form A in the Administrative County of Essex under the Public Health (Tuberculosis) Regulations, 1912, during the period 30th December, 1928, to 28th December, 1929, is given below :—

TABLE XII.

|                      | Notifications on Form A. |        |         |          |          |          |          |          |          |          |                   |     | Total<br>Primary<br>Notifications | Total<br>Notifica-<br>tions on<br>Form A. |
|----------------------|--------------------------|--------|---------|----------|----------|----------|----------|----------|----------|----------|-------------------|-----|-----------------------------------|-------------------------------------------|
|                      | Primary Notifications.   |        |         |          |          |          |          |          |          |          |                   |     |                                   |                                           |
|                      | Age Periods.             |        |         |          |          |          |          |          |          |          |                   |     |                                   |                                           |
|                      | 0 to 1                   | 1 to 5 | 5 to 10 | 10 to 15 | 15 to 20 | 20 to 25 | 25 to 35 | 35 to 45 | 45 to 55 | 55 to 65 | 65 and<br>upwards |     |                                   |                                           |
| Pulmonary, Males ... | —                        | 8      | 9       | 10       | 74       | 64       | 144      | 94       | 77       | 37       | 11                | 528 | 598                               |                                           |
| „ Females ...        | —                        | 3      | 9       | 23       | 72       | 89       | 122      | 86       | 40       | 12       | 12                | 468 | 541                               |                                           |
| Non-Pulmonary, Males | 6                        | 46     | 40      | 19       | 20       | 16       | 20       | 9        | 7        | —        | 1                 | 184 | 201                               |                                           |
| „ Females            | 4                        | 28     | 40      | 32       | 19       | 9        | 21       | 10       | 5        | 6        | 3                 | 177 | 187                               |                                           |

The number of duplicate notifications (11.1 per cent.) was not so many as in 1928 (13.3 per cent.)

There were 1,357 Primary Notifications on Form A during the year as compared with 1,375 in 1928 and 1,525 in 1927.

|                      | Notifications on Form B. |         |          |                                    |                                           | Notifications on Form C.  |            |
|----------------------|--------------------------|---------|----------|------------------------------------|-------------------------------------------|---------------------------|------------|
|                      | Primary Notifications.   |         |          |                                    | Total<br>Notifica-<br>tions on<br>Form B. | Poor Law<br>Institutions. | Sanatoria. |
|                      | Age Periods              |         |          | Total<br>Primary<br>Notifications. |                                           |                           |            |
|                      | Under 5                  | 5 to 10 | 10 to 15 |                                    |                                           |                           |            |
| Pulmonary, Males     | —                        | —       | —        | —                                  | —                                         | 60                        | 295        |
| „ Females            | —                        | —       | —        | —                                  | —                                         | 61                        | 209        |
| Non-Pulmonary, Males | —                        | —       | —        | —                                  | —                                         | 7                         | 43         |
| „ Females            | —                        | —       | —        | —                                  | —                                         | 9                         | 47         |



I suggested in my report for 1927 that the co-ordination which exists between the School Medical Inspectors, Tuberculosis Officers and General Practitioners, accounted for the few cases of school children notified on Form B. It will be seen from the above table that no notification on Form B was received during the year as compared with one case in 1928. There is no doubt that greater attention is being given to the establishment of a definite diagnosis in children before notification takes place. The importance of not "labelling" a child as tuberculous before being perfectly certain about the diagnosis is obvious.

**TABLE XIII.**

SHOWING SUPPLEMENTAL RETURN IN REGARD TO CASES NOT NOTIFIED UNDER  
THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912,  
DURING THE YEAR 1929.

|                      | Age periods. |         |          |           |           |           |           |           |           |           |                 | Total cases. |
|----------------------|--------------|---------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|--------------|
|                      | 0 to 1.      | 1 to 5. | 5 to 10. | 10 to 15. | 15 to 20. | 20 to 25. | 25 to 35. | 35 to 45. | 45 to 55. | 55 to 65. | 65 and upwards. |              |
| Pulmonary, Males     | —            | 3       | 1        | 4         | 7         | 16        | 28        | 23        | 25        | 18        | 12              | 137          |
| „ Females            | 1            | 1       | 1        | 2         | 7         | 15        | 21        | 20        | 13        | 11        | 11              | 103          |
| Non-pulmonary, Males | 6            | 10      | 8        | 1         | 4         | 2         | 1         | 1         | 1         | 1         | —               | 35           |
| „ Females            | 2            | 5       | 9        | 2         | 1         | 2         | 6         | 3         | 2         | 2         | 1               | 35           |

The number of cases of tuberculosis coming to the notice of the Medical Officer of Health and to the Chief Tuberculosis Officer otherwise than by formal notification under the Regulations is still too many. The number of such cases for 1929 is 310, as compared with 320 in 1928, 322 in 1927 and 476 in 1926.

The majority of these non-notified cases only came to the knowledge of the Medical Officer of Health upon receipt of the return of deaths from the local registrars. Table XVI. shows that out of 702 deaths from tuberculosis during the year, 185 were not notified. In 1928 the numbers were 647 and 139 respectively. There is therefore not only no improvement to report, but some retrogression, and District Medical Officers of Health should make every effort to bring to the notice of the General Practitioners in their areas the importance of notification and the Regulations which exist for enforcing this.



TABLE XIV.

SHOWING NUMBER OF CASES OF TUBERCULOSIS REMAINING ON THE REGISTERS OF NOTIFICATIONS KEPT BY THE DISTRICT MEDICAL OFFICERS OF HEALTH ON THE 31ST DECEMBER, 1929.

| Year. | Pulmonary. |          |        | Non-Pulmonary. |          |        | Total Cases. |
|-------|------------|----------|--------|----------------|----------|--------|--------------|
|       | Males.     | Females. | Total. | Males.         | Females. | Total. |              |
| 1929  | 4016       | 3587     | 7603   | 1521           | 1503     | 3024   | 10,627       |
| 1928  | 3959       | 3562     | 7521   | 1506           | 1478     | 2984   | 10,505       |

This table shows a slight increase in the number of cases on the Notification Register kept by District Medical Officers of Health, namely, 10,505 in 1928 and 10,627 in 1929.

TABLE XV.

SHOWING ATTACK AND DEATH-RATES FROM TUBERCULOSIS IN THE ADMINISTRATIVE COUNTY OF ESSEX.

| YEAR.   | Pulmonary Tuberculosis.  |                              |         |                              | Non-Pulmonary Tuberculosis. |                              |         |                              | Tuberculosis (All Forms). |                              |         |                              |
|---------|--------------------------|------------------------------|---------|------------------------------|-----------------------------|------------------------------|---------|------------------------------|---------------------------|------------------------------|---------|------------------------------|
|         | Noti-<br>fica-<br>tions. | Rate<br>per<br>1,000<br>Pop. | Deaths. | Rate<br>per<br>1,000<br>Pop. | Noti-<br>fica-<br>tions.    | Rate<br>per<br>1,000<br>Pop. | Deaths. | Rate<br>per<br>1,000<br>Pop. | Noti-<br>fica-<br>tions.  | Rate<br>per<br>1,000<br>Pop. | Deaths. | Rate<br>per<br>1,000<br>Pop. |
| 1912-16 | Not                      |                              | 851     | 0.86                         | Not                         |                              | 269     | 0.27                         | Not                       |                              | 1120    | 1.13                         |
| 1917-21 | avail                    | able                         | 752     | 0.89                         | avail                       | able                         | 199     | 0.24                         | avail                     | able                         | 951     | 1.13                         |
| 1922-26 | 1110                     | 1.16                         | 656     | 0.69                         | 320                         | 0.34                         | 148     | 0.15                         | 1430                      | 1.50                         | 804     | 0.84                         |
| 1926    | 1240                     | 1.25                         | 616     | 0.62                         | 359                         | 0.36                         | 141     | 0.14                         | 1599                      | 1.61                         | 757     | 0.76                         |
| 1927    | 1178                     | 1.14                         | 677     | 0.66                         | 351                         | 0.34                         | 146     | 0.14                         | 1529                      | 1.48                         | 823     | 0.80                         |
| 1928    | 1011                     | 0.93                         | 677     | 0.63                         | 365                         | 0.33                         | 135     | 0.12                         | 1376                      | 1.26                         | 812     | 0.75                         |
| 1929    | 996                      | 0.90                         | 716     | 0.64                         | 361                         | 0.32                         | 133     | 0.12                         | 1357                      | 1.22                         | 849     | 0.76                         |

Although there is a slight increase in the death rate per 1,000 population (0.76 as compared with 0.75 in 1928) the attack rate is still decreasing. The slight increase in the death rate is probably due to the same causes as the higher total death rate (see page 12) *i.e.*, Influenza and Respiratory Diseases due to the exceptionally severe weather during the first quarter of the year.



TABLE XVI.

SHOWING DEATHS FROM TUBERCULOSIS REGISTERED WITH LOCAL REGISTRARS OF BIRTHS AND DEATHS IN THE ADMINISTRATIVE COUNTY DURING 1929, AND PARTICULARS REGARDING NOTIFICATION UNDER THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912. (*Transferable Deaths are excluded*).

| DISTRICTS.              | No. of Deaths. | When Notified. |                           |                             |                              |                            |                            |                                 |     | No. Information. |
|-------------------------|----------------|----------------|---------------------------|-----------------------------|------------------------------|----------------------------|----------------------------|---------------------------------|-----|------------------|
|                         |                | After Death    | Within 3 months of death. | Within 3-6 months of death. | Within 6-12 months of death. | Within 1-2 years of death. | Within 2-4 years of death. | More than 4 years before death. |     |                  |
| Urban.                  |                |                |                           |                             |                              |                            |                            |                                 |     |                  |
| Barking ...             | 28             | 1              | 2                         | 2                           | 4                            | 6                          | 4                          | 2                               | 7   |                  |
| * Benfleet ...          | 5              | ...            | ...                       | 1                           | ...                          | 1                          | 1                          | ...                             | 2   |                  |
| Braintree ...           | 7              | ...            | ...                       | ...                         | 2                            | ...                        | 1                          | 2                               | 2   |                  |
| Brentwood ...           | ...            | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | ...                             | ... |                  |
| Brightlingsea ...       | 2              | ...            | 1                         | ...                         | ...                          | ...                        | ...                        | 1                               | ... |                  |
| Buckhurst Hill ...      | 2              | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | 1                               | 1   |                  |
| Burnham-on-Crouch ...   | 4              | ...            | 1                         | ...                         | ...                          | ...                        | ...                        | ...                             | 3   |                  |
| Canvey Island ...       | 5              | 1              | ...                       | 1                           | ...                          | ...                        | 1                          | 1                               | 1   |                  |
| Chelmsford B. ...       | 11             | ...            | 2                         | ...                         | ...                          | 5                          | ...                        | 1                               | 3   |                  |
| Chingford ...           | 11             | 2              | 1                         | ...                         | ...                          | 2                          | 2                          | ...                             | 4   |                  |
| Clacton-on-Sea ...      | 7              | 1              | 1                         | ...                         | 1                            | ...                        | 1                          | 1                               | 2   |                  |
| Colchester B. ...       | 39             | 5              | 9                         | 1                           | 1                            | 6                          | 5                          | 8                               | 4   |                  |
| Dagenham ...            | 59             | 8              | 9                         | 5                           | 3                            | 5                          | 15                         | ...                             | 14  |                  |
| Epping ...              | 2              | ...            | 1                         | ...                         | ...                          | ...                        | ...                        | ...                             | 1   |                  |
| Frinton-on-Sea ...      | 1              | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | ...                             | 1   |                  |
| Grays ...               | 16             | ...            | 2                         | 1                           | 2                            | 1                          | 2                          | ...                             | 8   |                  |
| Halstead ...            | 3              | ...            | 1                         | ...                         | ...                          | ...                        | ...                        | 1                               | 1   |                  |
| Harwich B. ...          | 7              | ...            | 1                         | 2                           | ...                          | 2                          | ...                        | ...                             | 2   |                  |
| Hornchurch ...          | 6              | ...            | ...                       | 1                           | ...                          | 2                          | ...                        | 1                               | 2   |                  |
| Ilford B. ...           | 61             | 8              | 7                         | 2                           | 12                           | 10                         | 11                         | 5                               | 6   |                  |
| Leyton B. ...           | 79             | 4              | 11                        | 9                           | 5                            | 12                         | 16                         | 7                               | 15  |                  |
| Loughton ...            | 4              | ...            | 1                         | 1                           | ...                          | 1                          | ...                        | ...                             | 1   |                  |
| Maldon B. ...           | 2              | ...            | 1                         | ...                         | ...                          | 1                          | ...                        | ...                             | ... |                  |
| † Purfleet ...          | 8              | ...            | 1                         | 1                           | ...                          | 1                          | 2                          | ...                             | 3   |                  |
| * Rayleigh ...          | 7              | ...            | ...                       | ...                         | 2                            | 3                          | 1                          | ...                             | 1   |                  |
| Romford ...             | 21             | 1              | 5                         | ...                         | 2                            | ...                        | 2                          | 2                               | 9   |                  |
| Saffron Walden B. ...   | 4              | 1              | ...                       | 1                           | ...                          | ...                        | ...                        | 1                               | 1   |                  |
| Shoeburyness ...        | 6              | ...            | 2                         | 2                           | ...                          | ...                        | ...                        | ...                             | 2   |                  |
| Tilbury ...             | 15             | 2              | 2                         | 3                           | 1                            | 2                          | 2                          | 1                               | 2   |                  |
| Waltham Holy Cross ...  | 2              | ...            | ...                       | ...                         | ...                          | 1                          | ...                        | ...                             | 1   |                  |
| Walthamstow B. ...      | 97             | 7              | 15                        | 6                           | 17                           | 12                         | 13                         | 7                               | 20  |                  |
| Walton-on-the-Naze ...  | ...            | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | ...                             | ... |                  |
| Wanstead ...            | 5              | ...            | 2                         | ...                         | 1                            | ...                        | ...                        | 1                               | 1   |                  |
| West Mersea ...         | 3              | ...            | 2                         | ...                         | ...                          | 1                          | ...                        | ...                             | ... |                  |
| Witham ...              | 1              | ...            | ...                       | 1                           | ...                          | ...                        | ...                        | ...                             | ... |                  |
| Wivenhoe ...            | 3              | ...            | 1                         | ...                         | ...                          | ...                        | 1                          | ...                             | 1   |                  |
| Woodford ...            | 4              | 1              | ...                       | ...                         | 1                            | 1                          | ...                        | ...                             | 1   |                  |
| Totals ...              | 537            | 42             | 81                        | 40                          | 54                           | 75                         | 80                         | 43                              | 122 |                  |
| Rural.                  |                |                |                           |                             |                              |                            |                            |                                 |     |                  |
| Belchamp ...            | 1              | ...            | ...                       | ...                         | 1                            | ...                        | ...                        | ...                             | ... |                  |
| Billericay ...          | 21             | 3              | 5                         | ...                         | 3                            | 2                          | 1                          | 1                               | 6   |                  |
| Braintree ...           | 15             | 1              | 1                         | 1                           | 1                            | 2                          | ...                        | ...                             | 9   |                  |
| Bumpstead ...           | ...            | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | ...                             | ... |                  |
| Chelmsford ...          | 12             | 1              | 3                         | ...                         | 1                            | 1                          | 1                          | 2                               | 3   |                  |
| Dunmow ...              | 11             | ...            | 3                         | 1                           | ...                          | 2                          | 1                          | ...                             | 4   |                  |
| Epping ...              | 9              | 1              | ...                       | ...                         | ...                          | 2                          | 1                          | ...                             | 5   |                  |
| Halstead ...            | 8              | ...            | 2                         | 1                           | 1                            | 1                          | ...                        | ...                             | 3   |                  |
| Lexden and Winstree ... | 13             | 2              | 3                         | 2                           | 1                            | ...                        | 1                          | 1                               | 3   |                  |
| Maldon ...              | 14             | 3              | 2                         | ...                         | 1                            | 3                          | 2                          | 2                               | 1   |                  |
| Ongar ...               | 2              | ...            | 1                         | ...                         | 1                            | ...                        | ...                        | ...                             | ... |                  |
| Orsett ...              | 14             | 1              | 2                         | ...                         | 2                            | 1                          | 1                          | 1                               | 6   |                  |
| Rochford ...            | 12             | ...            | ...                       | 1                           | ...                          | 1                          | 2                          | ...                             | 8   |                  |
| Romford ...             | 16             | 1              | 2                         | 2                           | ...                          | 1                          | 2                          | ...                             | 8   |                  |
| Saffron Walden ...      | 6              | ...            | ...                       | ...                         | 1                            | ...                        | 1                          | 1                               | 3   |                  |
| Stansted ...            | 3              | ...            | ...                       | ...                         | 1                            | 1                          | ...                        | ...                             | 1   |                  |
| Tendring ...            | 8              | 2              | 1                         | 1                           | ...                          | 1                          | ...                        | ...                             | 3   |                  |
| Totals ...              | 165            | 15             | 25                        | 9                           | 14                           | 18                         | 13                         | 8                               | 63  |                  |
| URBAN DISTRICTS ...     | 537            | 42             | 81                        | 40                          | 54                           | 75                         | 80                         | 43                              | 122 |                  |
| RURAL DISTRICTS ...     | 165            | 15             | 25                        | 9                           | 14                           | 18                         | 13                         | 8                               | 63  |                  |
| TOTALS ...              | 702            | 57             | 106                       | 49                          | 68                           | 93                         | 93                         | 51                              | 185 |                  |

† Constituted 1st April, 1929.  
 \* „ 1st October, 1929.



TABLE XVII.

SHOWING THE WORK OF THE DISPENSARIES DURING THE YEAR 1929.

| DIAGNOSIS.                                                                                             | PULMONARY. |      |          |     | NON-PULMONARY. |     |          |     | TOTAL.  |      |           |     |
|--------------------------------------------------------------------------------------------------------|------------|------|----------|-----|----------------|-----|----------|-----|---------|------|-----------|-----|
|                                                                                                        | Adults.    |      | Children |     | Adults.        |     | Children |     | Adults. |      | Children. |     |
|                                                                                                        | M.         | F.   | M.       | F.  | M.             | F.  | M.       | F.  | M.      | F.   | M.        | F.  |
| A.—NEW CASES examined during the year (excluding contacts):—                                           |            |      |          |     |                |     |          |     |         |      |           |     |
| (a) Definitely tuberculous ...                                                                         | 282        | 253  | 14       | 11  | 37             | 58  | 59       | 61  | 319     | 311  | 73        | 72  |
| (b) Doubtfully tuberculous ...                                                                         | ...        | ...  | ...      | ... | ...            | ... | ...      | ... | 369     | 347  | 219       | 173 |
| (c) Non-tuberculous ...                                                                                | ...        | ...  | ...      | ... | ...            | ... | ...      | ... | 114     | 119  | 168       | 126 |
| B.—CONTACTS examined during the year:—                                                                 |            |      |          |     |                |     |          |     |         |      |           |     |
| (a) Definitely tuberculous ...                                                                         | 24         | 39   | 2        | 6   | 3              | 5   | 5        | 6   | 27      | 44   | 7         | 12  |
| (b) Doubtfully tuberculous ...                                                                         | ...        | ...  | ...      | ... | ...            | ... | ...      | ... | 66      | 133  | 135       | 135 |
| (c) Non-tuberculous ...                                                                                | ...        | ...  | ...      | ... | ...            | ... | ...      | ... | 35      | 87   | 122       | 155 |
| C.—CASES written off the Dispensary Register as                                                        |            |      |          |     |                |     |          |     |         |      |           |     |
| (a) Cured ...                                                                                          | 55         | 49   | 20       | 16  | 9              | 17  | 27       | 21  | 64      | 66   | 47        | 37  |
| (b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ... | ...        | ...  | ...      | ... | ...            | ... | ...      | ... | 439     | 534  | 636       | 583 |
| D.—NUMBER OF PERSONS on Dispensary Register on Dec. 31st:—                                             |            |      |          |     |                |     |          |     |         |      |           |     |
| (a) Diagnosis completed ...                                                                            | 2007       | 1554 | 341      | 286 | 250            | 242 | 471      | 370 | 2257    | 1796 | 812       | 656 |
| (b) Diagnosis not completed ...                                                                        | ...        | ...  | ...      | ... | ...            | ... | ...      | ... | 228     | 124  | 190       | 224 |

|                                                                                                                 |       |                                                                                           |       |
|-----------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------|-------|
| 1. Number of persons on Dispensary Register on January 1st ...                                                  | 5683  | 10. Number of consultations with medical practitioners:—                                  |       |
| 2. Number of patients transferred from other areas and of "lost sight of" cases returned ...                    | 769   | (a) At homes of applicants ...                                                            | 516   |
| 3. Number of patients transferred to other areas and cases "lost sight of" ...                                  | 665   | (b) Otherwise ...                                                                         | 2210  |
| 4. Died during the year ...                                                                                     | 462   | 11. Number of other visits by Tuberculosis Officers to Homes... ..                        | 1721  |
| 5. Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months ... | 317   | 12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes ... .. | 21493 |
| 6. Number of attendances at the Dispensary (including contacts) ...                                             | 20091 | 13. Number of                                                                             |       |
| 7. Number of attendances of non-pulmonary cases at Orthopaedic Outstations for treatment or supervision ...     | 182   | (a) Specimens of sputum, &c., examined ... ..                                             | 2286  |
| 8. Number of attendances at General Hospitals or other Institutions approved for the purpose, of patients for   |       | (b) X-ray examinations made in connection with Dispensary work                            | 780   |
| (a) "Light" treatment ...                                                                                       | 1128  | 14. Number of insured persons on Dispensary Register on the 31st December ...             | 2945  |
| (b) Other special forms of treatment                                                                            | 467   | 15. Number of insured persons under Domiciliary Treatment on the 31st December ... ..     | 1181  |
| 9. Number of patients to whom Dental Treatment was given at or in connection with the Dispensary... ..          | 70    | 16. Number of reports received during the year in respect of insured persons:—            |       |
|                                                                                                                 |       | (a) Form G.P. 17 ... ..                                                                   | 10    |
|                                                                                                                 |       | (b) Form G.P. 36 ... ..                                                                   | 202   |



**Memorandum 37/T Tables.**

Table XVII. shows the work done in connection with the Tuberculosis Dispensaries during the year 1929. There were 3,368 new cases added to the dispensary registers as compared with 2,851 during 1928. Of these 3,368 new cases, 865 were definitely diagnosed as suffering from tuberculosis, 1,577 were considered doubtful cases, and 926 were diagnosed as non-tuberculous. The number of contacts examined during the year was 958 as compared with 872 during 1928.

At the end of 1929, the number of patients remaining on the dispensary registers was 6,287 as compared with 5,683 at the end of 1928. This increase is despite the fact that special efforts are being made to ensure the early removal from the register of the names of those patients who can be regarded as "Cured," "Lost sight of," or "Non-Tuberculous."

The number of attendances made by patients to Dispensaries during the year was 20,091 as compared with 21,061 during 1928. This figure shows a gradual decrease during the last three years in the attendances made by patients at Dispensaries, which it is hoped indicates the use of the dispensary primarily as a Consultation Centre.

There was a slight decrease in the number of visits paid by Health Visitors to the homes of patients. During 1929 there were 21,403 such visits as compared with 22,669 in 1928.

Sputum examinations carried out in connection with the dispensary increased from 2,106 in 1928 to 2,286 in 1929. Every effort is made to stress the importance of frequent sputum examinations in order to obtain bacteriological proof of the disease whenever possible.

The increased facilities for X-ray work were utilised to their fullest extent 780 X-ray photographs being taken during the year as compared with 648 during 1928.

**TABLE XVIII.****RESIDENTIAL INSTITUTIONS.**

(a) Average Number of Beds available for Patients during the Year 1929.

|                          | Pulmonary Tuberculosis. |                  |                | Non-Pulmonary Tuberculosis. |                   | Total. |
|--------------------------|-------------------------|------------------|----------------|-----------------------------|-------------------|--------|
|                          | Observation.            | Sanatorium Beds. | Hospital Beds. | Disease of Bones & Joints.  | Other Conditions. |        |
| Adult Males ... ..       | 4                       | 104              | 61             | 14                          | 7                 | 190    |
| Adult Females ... ..     | 6                       | 89               | 25             | 11                          | 9                 | 140    |
| Children under 15 ... .. | 14                      | 54               | 3              | 47                          | 13                | 131    |
| Total ... ..             | 24                      | 247              | 89             | 72                          | 29                | 461    |



From Table XVIII. (a) it will be seen that an average of 461 beds were kept occupied during the year. The average number of beds occupied during 1928 was 440. It was possible to secure a number of beds at South Coast Institutions during the year and this enabled a greater number of patients to receive institutional treatment.

Table XVIII. (b) below shows that the number of patients treated in institutions during the year was 859, as compared with 839 during 1928, whilst the total number of patients remaining under institutional treatment at the end of the year was 443 as compared with 479 at the end of 1928.

(b) Return showing the extent of Residential Treatment during the Year 1929.

|                                |   |           | In<br>Institutions<br>on Jan. 1st | Admitted<br>during the<br>year. | Discharged<br>during the<br>year. | Died<br>in the<br>Institutions. | In<br>Institutions<br>on Dec. 31st. |     |
|--------------------------------|---|-----------|-----------------------------------|---------------------------------|-----------------------------------|---------------------------------|-------------------------------------|-----|
| Number of Patients             | { | Adults.   | M.                                | 167                             | 370                               | 292                             | 67                                  | 178 |
|                                |   | F.        | 159                               | 251                             | 251                               | 29                              | 130                                 |     |
|                                | { | Children. | M.                                | 64                              | 62                                | 69                              | —                                   | 57  |
|                                |   | F.        | 52                                | 65                              | 63                                | 2                               | 52                                  |     |
| Number of Observation<br>Cases | { | Adults.   | M.                                | 3                               | 44                                | 41                              | 1                                   | 5   |
|                                |   | F.        | 9                                 | 50                              | 55                                | 1                               | 3                                   |     |
|                                | { | Children. | M.                                | 11                              | 47                                | 48                              | —                                   | 10  |
|                                |   | F.        | 14                                | 34                              | 40                                | —                               | 8                                   |     |
| Total                          |   |           | ...                               | 479                             | 923                               | 859                             | 100                                 | 443 |

Table XIX. shows the results of the treatment of patients who were discharged from institutions during the year. The average length of stay of pulmonary patients was 3 months.

There is often such a wide variation in the period of treatment required by a non-pulmonary patient that an average length of stay would not represent the true position. So far as the pulmonary patients are concerned, the length of stay depended upon the response made by the patient to treatment, except in those advanced cases admitted for segregational purposes. Difficulty in obtaining suitable accommodation for female patients suffering from advanced pulmonary tuberculosis is still being experienced and most of those cases recommended for institutional segregation were referred to the Infirmary for the district.



TABLE XIX.

SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF PATIENTS AND OF OBSERVATION OF DOUBTFUL CASES DISCHARGED FROM RESIDENTIAL INSTITUTIONS DURING THE YEAR 1929.

| Classification on admission to the Institution. | Condition at time of discharge. | Duration of Residential Treatment in the Institution. |     |     |             |     |     |              |     |     |                      |     |     | TOTAL |    |
|-------------------------------------------------|---------------------------------|-------------------------------------------------------|-----|-----|-------------|-----|-----|--------------|-----|-----|----------------------|-----|-----|-------|----|
|                                                 |                                 | Under 3 months.                                       |     |     | 3-6 months. |     |     | 6-12 months. |     |     | More than 12 months. |     |     |       |    |
|                                                 |                                 | M.                                                    | F.  | Ch. | M.          | F.  | Ch. | M.           | F.  | Ch. | M.                   | F.  | Ch. |       |    |
| PULMONARY TUBERCULOSIS.                         | Class T. B. minus.              | Quiescent                                             | 6   | 10  | 9           | 3   | 2   | 11           | 5   | 5   | ...                  | ... | ... | 51    |    |
|                                                 | Improved                        | 27                                                    | 20  | 9   | 10          | 10  | 1   | 4            | 7   | 3   | ...                  | 1   | 1   | 93    |    |
|                                                 | No material improvement         | 7                                                     | 2   | 1   | 2           | ... | ... | 2            | 1   | ... | ...                  | ... | ... | 15    |    |
|                                                 | Died in Institution             | 5                                                     | ... | ... | 1           | ... | ... | ...          | ... | ... | ...                  | ... | ... | 6     |    |
|                                                 | Class T. B. plus. Group 1.      | Quiescent                                             | 1   | 6   | ...         | 1   | 1   | 1            | 1   | ... | ...                  | 1   | 2   | 14    |    |
|                                                 | Improved                        | 18                                                    | 4   | ... | 3           | 8   | ... | 4            | 5   | 1   | 1                    | ... | ... | 44    |    |
|                                                 | No material improvement         | 1                                                     | 1   | ... | 2           | 5   | ... | 3            | 2   | ... | ...                  | 1   | ... | 15    |    |
|                                                 | Died in Institution             | 3                                                     | 1   | ... | ...         | 2   | ... | 1            | 2   | ... | 1                    | ... | ... | 10    |    |
|                                                 | Class T. B. plus. Group 2.      | Quiescent                                             | ... | 5   | 1           | ... | 4   | ...          | ... | 1   | ...                  | 4   | ... | 15    |    |
|                                                 | Improved                        | 33                                                    | 18  | ... | 32          | 23  | ... | 16           | 16  | ... | 5                    | 6   | 1   | 150   |    |
|                                                 | No material improvement         | 39                                                    | 19  | ... | 12          | 12  | ... | 11           | 2   | 1   | 4                    | 3   | —   | 103   |    |
|                                                 | Died in Institution             | 28                                                    | 8   | ... | 8           | 7   | ... | ...          | ... | ... | 1                    | 2   | ... | 54    |    |
|                                                 | Class T. B. plus. Group 3.      | Quiescent                                             | ... | ... | ...         | ... | ... | ...          | ... | ... | ...                  | ... | ... | ...   |    |
|                                                 | Improved                        | 1                                                     | 5   | ... | ...         | 1   | ... | 2            | 2   | ... | 1                    | ... | ... | 12    |    |
|                                                 | No material improvement         | 5                                                     | 8   | ... | 1           | 5   | ... | 4            | ... | ... | ...                  | 1   | ... | 24    |    |
|                                                 | Died in Institution             | 6                                                     | 4   | ... | 3           | 1   | ... | 4            | ... | ... | 3                    | ... | ... | 21    |    |
| NON-PULMONARY TUBERCULOSIS.                     | Bones and Joints.               | Quiescent or Arrested                                 | 1   | 2   | 5           | 1   | 1   | 3            | 2   | 5   | 4                    | 2   | 1   | 8     | 35 |
|                                                 | Improved                        | 2                                                     | 2   | ... | 2           | 2   | 3   | 1            | 3   | ... | 6                    | ... | 4   | 25    |    |
|                                                 | No material improvement         | ...                                                   | ... | 1   | 1           | ... | 1   | ...          | ... | ... | ...                  | 1   | 1   | 5     |    |
|                                                 | Died in Institution             | ...                                                   | ... | 1   | ...         | ... | ... | ...          | ... | ... | ...                  | 2   | ... | 3     |    |
|                                                 | Abdominal.                      | Quiescent or Arrested                                 | ... | 1   | 4           | ... | ... | 1            | ... | ... | ...                  | ... | ... | 6     |    |
|                                                 | Improved                        | ...                                                   | 2   | 3   | 1           | ... | ... | ...          | ... | ... | ...                  | ... | ... | 6     |    |
|                                                 | No material improvement         | ...                                                   | ... | ... | ...         | ... | ... | ...          | 1   | ... | ...                  | ... | ... | 1     |    |
|                                                 | Died in Institution             | 1                                                     | ... | 1   | ...         | ... | ... | ...          | ... | ... | ...                  | ... | ... | 2     |    |
|                                                 | Other Organs.                   | Quiescent or Arrested                                 | ... | ... | 1           | ... | ... | ...          | ... | ... | ...                  | 1   | ... | 2     |    |
|                                                 | Improved                        | ...                                                   | ... | ... | 1           | ... | ... | ...          | ... | ... | ...                  | ... | ... | 1     |    |
|                                                 | No material improvement         | ...                                                   | ... | ... | 1           | ... | ... | 1            | ... | ... | ...                  | ... | ... | 2     |    |
|                                                 | Died in Institution             | 1                                                     | ... | ... | ...         | ... | ... | ...          | ... | ... | ...                  | ... | ... | 1     |    |
|                                                 | Peripheral Glands.              | Quiescent or Arrested                                 | 1   | 1   | 19          | ... | 1   | 11           | ... | ... | 6                    | ... | ... | 5     | 44 |
|                                                 | Improved                        | ...                                                   | 2   | 4   | 2           | ... | 3   | ...          | ... | ... | ...                  | ... | ... | 11    |    |
|                                                 | No material improvement         | ...                                                   | ... | ... | ...         | 1   | ... | ...          | ... | ... | ...                  | ... | ... | 1     |    |
|                                                 | Died in Institution             | 1                                                     | ... | ... | ...         | ... | ... | ...          | ... | ... | ...                  | ... | ... | 1     |    |
| Observation for purpose of diagnosis.           |                                 | Under 1 week.                                         |     |     | 1-2 weeks.  |     |     | 2-4 weeks.   |     |     | More than 4 weeks.   |     |     |       |    |
|                                                 | Tuberculous                     | 1                                                     | ... | ... | 3           | 5   | ... | 7            | 7   | 2   | 5                    | 8   | 9   | 47    |    |
|                                                 | Non-tuberculous                 | ...                                                   | 2   | 1   | 1           | 4   | 1   | 12           | 17  | 10  | 11                   | 8   | 56  | 123   |    |
|                                                 | Doubtful                        | ...                                                   | ... | 1   | ...         | ... | ... | 1            | 1   | 1   | ...                  | 3   | 7   | 14    |    |
|                                                 | Died                            | ...                                                   | ... | ... | ...         | ... | ... | 1            | ... | ... | ...                  | 1   | ... | 2     |    |



TABLE XX.

## (a) PULMONARY TUBERCULOSIS.

Table showing in summary form the condition of all patients whose case records are in the possession of the Dispensaries at the end of 1929, arranged according to the years in which the patients first came under public medical treatment for Pulmonary Tuberculosis, and their classification as shown on Form A.

| Condition at the time of the last record made during the year to which the Return relates. |                       |                | Previous to 1925.  |                   |          |          |                           | 1925.              |                   |          |          |                           | 1927.              |                   |          |          |                           | 1928.              |                   |          |          |                           | 1929.              |                   |          |          |                           |     |     |
|--------------------------------------------------------------------------------------------|-----------------------|----------------|--------------------|-------------------|----------|----------|---------------------------|--------------------|-------------------|----------|----------|---------------------------|--------------------|-------------------|----------|----------|---------------------------|--------------------|-------------------|----------|----------|---------------------------|--------------------|-------------------|----------|----------|---------------------------|-----|-----|
|                                                                                            |                       |                | Class T. B. Minus. | Class T. B. Plus. |          |          |                           | Class T. B. Minus. | Class T. B. Plus. |          |          |                           | Class T. B. Minus. | Class T. B. Plus. |          |          |                           | Class T. B. Minus. | Class T. B. Plus. |          |          |                           | Class T. B. Minus. | Class T. B. Plus. |          |          |                           |     |     |
|                                                                                            |                       |                |                    | Group 1.          | Group 2. | Group 3. | Total (Class T. B. Plus.) |                    | Group 1.          | Group 2. | Group 3. | Total (Class T. B. Plus.) |                    | Group 1.          | Group 2. | Group 3. | Total (Class T. B. Plus.) |                    | Group 1.          | Group 2. | Group 3. | Total (Class T. B. Plus.) |                    | Group 1.          | Group 2. | Group 3. | Total (Class T. B. Plus.) |     |     |
| ALIVE.                                                                                     | Discharged as cured.  | Adults.        | M.                 | 100               | 15       | 6        | ...                       | 21                 | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ... | ... |
|                                                                                            |                       | F.             | 122                | 7                 | 5        | 2        | 14                        | 1                  | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ... |     |
|                                                                                            |                       | Child-<br>ren. | M.                 | 87                | ...      | 1        | ...                       | 1                  | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ... | ... |
|                                                                                            |                       |                | F.                 | 37                | 1        | ...      | ...                       | 1                  | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ... | ... |
|                                                                                            | Disease arrested.     | Adults.        | M.                 | 199               | 65       | 80       | 5                         | 150                | 74                | 19       | 17       | 3                         | 39                 | 64                | 10       | 15       | 2                         | 27                 | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ... | ... |
|                                                                                            |                       | F.             | 181                | 16                | 76       | 19       | 111                       | 77                 | 9                 | 10       | ...      | 19                        | 67                 | 10                | 6        | 1        | 17                        | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ... |     |
|                                                                                            |                       | Child-<br>ren. | M.                 | 91                | 1        | 6        | 1                         | 8                  | 30                | ...      | ...      | ...                       | ...                | 23                | 1        | ...      | ...                       | 1                  | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ... | ... |
|                                                                                            |                       |                | F.                 | 92                | 2        | 1        | ...                       | 3                  | 19                | 1        | ...      | ...                       | 1                  | 22                | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ... | ... |
|                                                                                            | Disease not arrested. | Adults.        | M.                 | 135               | 61       | 286      | 24                        | 371                | 29                | 23       | 66       | 9                         | 98                 | 28                | 30       | 81       | 12                        | 123                | 64                | 33       | 97       | 12                        | 142                | 98                | 37       | 159      | 16                        | 212 |     |
|                                                                                            |                       | F.             | 96                 | 26                | 79       | 37       | 142                       | 45                 | 40                | 44       | 8        | 92                        | 54                 | 27                | 77       | 8        | 112                       | 95                 | 30                | 82       | 14       | 126                       | 105                | 32                | 164      | 29       | 165                       |     |     |
|                                                                                            |                       | Child-<br>ren. | M.                 | 45                | 3        | 3        | 2                         | 8                  | 21                | 1        | 2        | 1                         | 4                  | 17                | 1        | 1        | ...                       | 2                  | 33                | 1        | 2        | 1                         | 4                  | 10                | 2        | 1        | 1                         | 4   |     |
|                                                                                            |                       |                | F.                 | 51                | 3        | 5        | 1                         | 9                  | 13                | ...      | ...      | ...                       | ...                | 14                | 2        | ...      | ...                       | 2                  | 20                | ...      | 1        | ...                       | 1                  | 12                | 1        | 4        | 2                         | 7   |     |
| Condition not ascertained during the year ...                                              |                       |                | 56                 | 19                | 21       | 1        | 41                        | 30                 | 8                 | 14       | ...      | 22                        | 38                 | 11                | 14       | ...      | 25                        | 37                 | 10                | 5        | ...      | 15                        | ...                | ...               | ...      | ...      | ...                       | ... |     |
| Lost sight of or otherwise removed from Dispensary Register ...                            |                       |                | 962                | 204               | 148      | 46       | 398                       | 276                | 79                | 64       | 22       | 165                       | 187                | 67                | 72       | 23       | 162                       | 50                 | 8                 | 20       | ...      | 28                        | 42                 | 7                 | 18       | ...      | 28                        |     |     |
| DEAD.                                                                                      | Adults.               | M.             | 86                 | 43                | 135      | 137      | 315                       | 49                 | 25                | 8        | 39       | 151                       | 35                 | 17                | 78       | 51       | 146                       | 23                 | 12                | 60       | 38       | 111                       | 9                  | 7                 | 17       | 13       | 37                        |     |     |
|                                                                                            |                       | F.             | 46                 | 14                | 90       | 90       | 194                       | 36                 | 13                | 41       | 33       | 87                        | 25                 | 19                | 52       | 28       | 99                        | 13                 | 10                | 48       | 22       | 80                        | 8                  | 5                 | 8        | 12       | 25                        |     |     |
|                                                                                            | Child-<br>ren.        | M.             | 6                  | ...               | 1        | 1        | 2                         | 3                  | ...               | ...      | 1        | 1                         | 2                  | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       | ...                | ...               | ...      | ...      | ...                       |     |     |
|                                                                                            |                       | F.             | 5                  | ...               | 6        | 4        | 10                        | 1                  | 1                 | 1        | 1        | 3                         | 3                  | ...               | 1        | 2        | 3                         | ...                | 1                 | 1        | 1        | 3                         | 1                  | ...               | 1        | 1        | 2                         |     |     |
| TOTALS ...                                                                                 |                       |                | 2397               | 480               | 949      | 370      | 1799                      | 703                | 219               | 346      | 117      | 682                       | 79                 | 195               | 397      | 127      | 719                       | 335                | 106               | 316      | 88       | 510                       | 285                | 91                | 312      | 74       | 477                       |     |     |







**TABLE X.**  
SHOWING PARTICULARS OF WORK CARRIED OUT BY LOCAL SANITARY AUTHORITIES UNDER THE  
PUBLIC HEALTH AND HOUSING ACTS DURING THE YEAR 1929.

| PUBLIC HEALTH AND HOUSING ACTS DURING THE YEAR 1929. |                                    |                                                    |                                   |                                                                                                                               |                                                                                             |                                                                                                           |                                                                                      |                                                                                                                        |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
|------------------------------------------------------|------------------------------------|----------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------|----|----|
| SANITARY DISTRICTS.                                  | NEW HOUSES<br>ERECTED DURING 1929. |                                                    |                                   | UNFIT DWELLING HOUSES.                                                                                                        |                                                                                             |                                                                                                           |                                                                                      | Houses<br>rendered<br>fit in<br>consequence<br>of informal<br>action by<br>Local<br>Authority<br>or their<br>Officers. | ACTION UNDER STATUTORY POWERS.                                                                            |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
|                                                      | Total.                             | With State assistance<br>under Housing Acts,<br>by |                                   | Total No.<br>inspected<br>for Housing<br>Defects<br>under<br>Public<br>Health<br>Housing<br>Consolida-<br>tion Regs.<br>1924. | No. inspec-<br>ted and<br>recorded<br>under<br>Housing<br>Consolida-<br>tion Regs.<br>1924. | No. found<br>so danger-<br>ous or<br>injurious<br>to health as<br>to be unfit<br>for human<br>habitation. | No. found<br>not in all<br>respects<br>reasonably<br>fit for<br>human<br>habitation. |                                                                                                                        | PROCEEDINGS UNDER SECTION 3 HOUSING<br>ACT, 1925.                                                         |                                                              |                                                                           | PROCEEDINGS UNDER<br>PUBLIC HEALTH ACTS.                                                  |                                                   | PROCEEDINGS UNDER SECTIONS 11, 14 & 15 OF<br>HOUSING ACT, 1925.                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
|                                                      |                                    | Local<br>Authority.                                | Other<br>Bodies<br>or<br>Persons. |                                                                                                                               |                                                                                             |                                                                                                           |                                                                                      |                                                                                                                        | No. of<br>Dwelling<br>Houses<br>in respect<br>of which<br>Notices<br>were served<br>requiring<br>repairs. | No. Dwelling Houses<br>rendered fit after<br>formal Notices. | No. of<br>Dwelling<br>Houses<br>Closing<br>Orders<br>became<br>operative. | No. of<br>Dwelling<br>Houses<br>in which defects were<br>remedied after formal<br>Notice. | By Local<br>Authority<br>in default<br>of Owners. | No. of<br>representa-<br>tions made<br>with view<br>of making<br>Closing<br>Orders. | No. of<br>Dwelling<br>Houses<br>Closing<br>Orders<br>made. | No. of Dwel-<br>ling Houses<br>Closing<br>Orders<br>determined<br>Houses<br>being<br>rendered fit. | No. of<br>Dwelling<br>Houses<br>Demolition<br>Orders<br>made. | No. of<br>Dwelling<br>Houses<br>demolished<br>in pursuance<br>of<br>Demolition<br>Orders. | No. of<br>Houses<br>demolished<br>voluntarily. |    |    |
|                                                      |                                    |                                                    |                                   |                                                                                                                               |                                                                                             |                                                                                                           |                                                                                      |                                                                                                                        |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| URBAN.                                               |                                    |                                                    |                                   |                                                                                                                               |                                                                                             |                                                                                                           |                                                                                      |                                                                                                                        |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BARKING                                              | 700                                | 206                                                | 494                               | 4413                                                                                                                          | 1148                                                                                        | 10                                                                                                        | 2420                                                                                 | 2191                                                                                                                   | 112                                                                                                       | 109                                                          | 3                                                                         | 379                                                                                       | 379                                               | 9                                                                                   | 9                                                          |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BENFLEET                                             | 7                                  |                                                    |                                   | 207                                                                                                                           |                                                                                             |                                                                                                           |                                                                                      |                                                                                                                        |                                                                                                           |                                                              |                                                                           | 31                                                                                        |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BRAINTREE                                            | 60                                 |                                                    |                                   | 178                                                                                                                           | 96                                                                                          | 3                                                                                                         | 24                                                                                   | 80                                                                                                                     | 5                                                                                                         | 5                                                            |                                                                           | 84                                                                                        | 73                                                | 3                                                                                   | 2                                                          |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BRENTWOOD                                            | 8                                  |                                                    |                                   | 235                                                                                                                           | 7                                                                                           | 5                                                                                                         | 2                                                                                    |                                                                                                                        | 2                                                                                                         |                                                              |                                                                           | 3                                                                                         |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BRIGHTLINGSEA                                        | 20                                 |                                                    |                                   | 15                                                                                                                            | 11                                                                                          | 4                                                                                                         | 18                                                                                   | 15                                                                                                                     | 4                                                                                                         |                                                              |                                                                           | 3                                                                                         | 126                                               | 126                                                                                 | 3                                                          | 2                                                                                                  |                                                               |                                                                                           |                                                |    |    |
| BUCKHURST HILL                                       | 16                                 |                                                    |                                   | 100                                                                                                                           | 26                                                                                          |                                                                                                           |                                                                                      |                                                                                                                        |                                                                                                           |                                                              |                                                                           | 1                                                                                         |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BURNHAM-ON-CROUCH                                    | 48                                 | 18                                                 | 26                                | 260                                                                                                                           | 390                                                                                         |                                                                                                           | 50                                                                                   | 70                                                                                                                     |                                                                                                           |                                                              |                                                                           | 4                                                                                         | 1                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           | 3                                              | 3  | 7  |
| CANVEY ISLAND                                        | 66                                 |                                                    |                                   | 29                                                                                                                            |                                                                                             | 8                                                                                                         | 4                                                                                    | 16                                                                                                                     |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| CHELMFORD B.                                         | 671                                | 246                                                | 382                               | 1739                                                                                                                          | 64                                                                                          |                                                                                                           |                                                                                      | 20                                                                                                                     | 4                                                                                                         | 4                                                            |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| CHINGFORD                                            | 417                                |                                                    |                                   | 60                                                                                                                            | 8                                                                                           |                                                                                                           | 160                                                                                  | 131                                                                                                                    |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| CLACTON-ON-SEA                                       | 175                                |                                                    |                                   | 388                                                                                                                           | 164                                                                                         |                                                                                                           |                                                                                      | 15                                                                                                                     | 1                                                                                                         |                                                              |                                                                           | 265                                                                                       | 229                                               | 8                                                                                   | 8                                                          | 2                                                                                                  |                                                               |                                                                                           |                                                |    |    |
| COLCHESTER B.                                        | 219                                | 145                                                | 42                                | 780                                                                                                                           | 84                                                                                          | 3                                                                                                         | 235                                                                                  | 135                                                                                                                    | 45                                                                                                        | 18                                                           |                                                                           | 5                                                                                         | 5                                                 | 8                                                                                   | 8                                                          |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| DAGENHAM                                             | 1681                               |                                                    |                                   | 1515                                                                                                                          | 280                                                                                         | 2                                                                                                         | 275                                                                                  | 610                                                                                                                    | 60                                                                                                        | 60                                                           | 2                                                                         | 37                                                                                        | 13                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           | 4                                              | 2  |    |
| EPFING                                               | 35                                 |                                                    |                                   | 31                                                                                                                            |                                                                                             |                                                                                                           |                                                                                      | 53                                                                                                                     | 225                                                                                                       | 218                                                          |                                                                           | 36                                                                                        | 22                                                | 2                                                                                   | 3                                                          |                                                                                                    |                                                               |                                                                                           | 1                                              |    |    |
| FRINTON-ON-SEA                                       | 10                                 |                                                    |                                   | 16                                                                                                                            |                                                                                             |                                                                                                           | 10                                                                                   | 9                                                                                                                      |                                                                                                           |                                                              |                                                                           | 183                                                                                       | 175                                               | 2                                                                                   | 3                                                          | 3                                                                                                  |                                                               |                                                                                           |                                                |    |    |
| GRAYS                                                | 147                                | 78                                                 | 36                                | 439                                                                                                                           | 230                                                                                         |                                                                                                           |                                                                                      |                                                                                                                        |                                                                                                           |                                                              |                                                                           | 4                                                                                         |                                                   | 4                                                                                   | 3                                                          |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| HALSTEAD                                             | 14                                 |                                                    |                                   | 53                                                                                                                            | 58                                                                                          | 3                                                                                                         | 280                                                                                  | 198                                                                                                                    | 11                                                                                                        | 11                                                           |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                | 2  |    |
| HARWICH B.                                           | 94                                 |                                                    |                                   | 70                                                                                                                            | 47                                                                                          | 8                                                                                                         | 9                                                                                    | 138                                                                                                                    | 91                                                                                                        | 72                                                           |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| HORNCHURCH                                           | 1213                               | 40                                                 | 788                               | 251                                                                                                                           | 108                                                                                         | 12                                                                                                        | 196                                                                                  | 131                                                                                                                    | 30                                                                                                        | 20                                                           |                                                                           | 19                                                                                        | 19                                                | 7                                                                                   | 3                                                          | 1                                                                                                  |                                                               |                                                                                           |                                                |    |    |
| LEIPOLD B.                                           | 1215                               | 124                                                | 1091                              | 1085                                                                                                                          | 206                                                                                         |                                                                                                           | 479                                                                                  | 390                                                                                                                    | 161                                                                                                       | 52                                                           |                                                                           | 44                                                                                        | 34                                                | 3                                                                                   | 12                                                         | 12                                                                                                 |                                                               |                                                                                           |                                                |    |    |
| LOUGHTON                                             | 228                                |                                                    |                                   | 3228                                                                                                                          | 823                                                                                         |                                                                                                           | 1705                                                                                 | 1705                                                                                                                   | 49                                                                                                        | 25                                                           | 16                                                                        | 3                                                                                         | 3                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| MALDON B.                                            | 71                                 |                                                    |                                   | 40                                                                                                                            | 40                                                                                          |                                                                                                           | 10                                                                                   |                                                                                                                        |                                                                                                           |                                                              |                                                                           | 2                                                                                         | 2                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| MURLEIGH                                             | 21                                 |                                                    |                                   | 183                                                                                                                           | 28                                                                                          |                                                                                                           | 16                                                                                   | 2                                                                                                                      | 14                                                                                                        | 13                                                           |                                                                           |                                                                                           |                                                   | 1                                                                                   | 1                                                          |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| RAFLEIGH                                             | 59                                 | 50                                                 | 9                                 | 180                                                                                                                           | 150                                                                                         | 10                                                                                                        | 156                                                                                  | 147                                                                                                                    | 20                                                                                                        | 11                                                           |                                                                           | 75                                                                                        | 75                                                |                                                                                     |                                                            |                                                                                                    |                                                               | 3                                                                                         | 2                                              | 2  | 3  |
| ROMFORD                                              | 8                                  |                                                    |                                   | 12                                                                                                                            |                                                                                             |                                                                                                           | 12                                                                                   | 2                                                                                                                      |                                                                                                           |                                                              |                                                                           | 16                                                                                        | 14                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| SAFFRON WALDEN B.                                    | 591                                |                                                    | 240                               | 518                                                                                                                           |                                                                                             |                                                                                                           | 264                                                                                  | 235                                                                                                                    |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   | 6                                                                                   | 6                                                          |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| SHOEBURYNESSE                                        | 40                                 |                                                    |                                   | 199                                                                                                                           | 78                                                                                          |                                                                                                           | 3                                                                                    |                                                                                                                        |                                                                                                           |                                                              |                                                                           | 16                                                                                        | 16                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    | 2  |
| TILBURY                                              | 317                                | 311                                                | 6                                 | 232                                                                                                                           | 81                                                                                          |                                                                                                           | 160                                                                                  | 136                                                                                                                    | 18                                                                                                        | 16                                                           | 2                                                                         | 114                                                                                       | 114                                               |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| WALTHAM HOLY CROSS                                   | 60                                 | 50                                                 | 3                                 | 214                                                                                                                           | 123                                                                                         |                                                                                                           | 412                                                                                  | 373                                                                                                                    | 37                                                                                                        | 35                                                           |                                                                           | 2                                                                                         | 2                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| WALTHAMSTOW B.                                       | 566                                | 64                                                 | 18                                | 6057                                                                                                                          | 516                                                                                         |                                                                                                           | 115                                                                                  | 108                                                                                                                    | 13                                                                                                        | 5                                                            |                                                                           | 10                                                                                        | 10                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| WALTON-ON-THE-NEZE                                   | 18                                 |                                                    |                                   | 26                                                                                                                            |                                                                                             |                                                                                                           | 357                                                                                  | 1972                                                                                                                   | 85                                                                                                        | 73                                                           | 5                                                                         | 5                                                                                         | 5                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| WANSTEAD                                             | 72                                 |                                                    |                                   | 421                                                                                                                           | 3                                                                                           |                                                                                                           | 76                                                                                   | 132                                                                                                                    | 13                                                                                                        | 5                                                            |                                                                           | 2                                                                                         | 2                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| WEST MERSEA                                          | 23                                 |                                                    |                                   | 36                                                                                                                            | 25                                                                                          |                                                                                                           | 18                                                                                   | 18                                                                                                                     |                                                                                                           |                                                              |                                                                           | 8                                                                                         | 8                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| WITHAM                                               | 19                                 |                                                    |                                   | 86                                                                                                                            | 10                                                                                          | 1                                                                                                         | 28                                                                                   | 20                                                                                                                     |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| WIVENHOE                                             | 5                                  |                                                    |                                   | 118                                                                                                                           |                                                                                             |                                                                                                           | 2                                                                                    |                                                                                                                        |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| WOODFORD                                             | 148                                |                                                    |                                   | 2597                                                                                                                          | 774                                                                                         |                                                                                                           | 218                                                                                  | 187                                                                                                                    |                                                                                                           |                                                              |                                                                           | 11                                                                                        | 11                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| URBAN TOTAL...                                       | 9052                               | 1292                                               | 4529                              | 27369                                                                                                                         | 5682                                                                                        | 79                                                                                                        | 9029                                                                                 | 9277                                                                                                                   | 927                                                                                                       | 748                                                          | 29                                                                        | 23                                                                                        | 1524                                              | 1412                                                                                | 3                                                          | 66                                                                                                 | 64                                                            | 9                                                                                         | 24                                             | 21 | 12 |
| RURAL.                                               |                                    |                                                    |                                   |                                                                                                                               |                                                                                             |                                                                                                           |                                                                                      |                                                                                                                        |                                                                                                           |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BELCHAMP                                             | 3                                  |                                                    |                                   | 321                                                                                                                           | 109                                                                                         | 27                                                                                                        | 41                                                                                   | 41                                                                                                                     |                                                                                                           |                                                              |                                                                           | 41                                                                                        | 40                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BILLCORRY                                            | 603                                |                                                    |                                   | 228                                                                                                                           | 298                                                                                         | 7                                                                                                         | 203                                                                                  | 72                                                                                                                     |                                                                                                           |                                                              |                                                                           | 37                                                                                        |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BRAINTREE                                            | 346                                | 80                                                 | 251                               | 250                                                                                                                           | 50                                                                                          | 7                                                                                                         | 89                                                                                   | 100                                                                                                                    | 51                                                                                                        | 6                                                            |                                                                           | 36                                                                                        | 34                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| BUMPSTEAD                                            | 1                                  |                                                    |                                   | 1                                                                                                                             | 38                                                                                          |                                                                                                           | 1                                                                                    | 38                                                                                                                     |                                                                                                           |                                                              |                                                                           | 7                                                                                         | 7                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| CHELMFORD                                            | 271                                | 74                                                 | 132                               | 1156                                                                                                                          | 103                                                                                         | 19                                                                                                        | 118                                                                                  | 126                                                                                                                    |                                                                                                           |                                                              |                                                                           | 30                                                                                        | 21                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| DUNHOLM                                              | 126                                | 160                                                | 16                                | 78                                                                                                                            | 22                                                                                          | 7                                                                                                         | 70                                                                                   | 62                                                                                                                     | 4                                                                                                         | 4                                                            |                                                                           | 1                                                                                         | 1                                                 |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| EPFING                                               | 99                                 | 26                                                 | 2                                 | 367                                                                                                                           | 15                                                                                          | 3                                                                                                         | 254                                                                                  | 220                                                                                                                    |                                                                                                           |                                                              |                                                                           | 34                                                                                        | 34                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| LEIPOLD AND WINSTREE                                 | 127                                | 60                                                 | 43                                | 688                                                                                                                           | 201                                                                                         | 31                                                                                                        | 192                                                                                  | 159                                                                                                                    | 14                                                                                                        | 12                                                           |                                                                           | 41                                                                                        | 41                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| MALDON                                               | 107                                | 48                                                 | 23                                | 286                                                                                                                           | 75                                                                                          |                                                                                                           | 56                                                                                   | 64                                                                                                                     |                                                                                                           |                                                              |                                                                           | 16                                                                                        | 14                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| ONGAR                                                | 136                                | 76                                                 | 6                                 | 24                                                                                                                            | 24                                                                                          | 1                                                                                                         | 24                                                                                   | 12                                                                                                                     | 12                                                                                                        | 12                                                           |                                                                           | 30                                                                                        | 28                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| ORSETT                                               | 373                                | 120                                                | 190                               | 753                                                                                                                           | 138                                                                                         | 12                                                                                                        | 160                                                                                  | 99                                                                                                                     |                                                                                                           |                                                              |                                                                           | 43                                                                                        | 42                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| ROCHFORD                                             | 445                                | 62                                                 | 197                               | 300                                                                                                                           | 32                                                                                          | 9                                                                                                         | 130                                                                                  | 43                                                                                                                     | 62                                                                                                        | 58                                                           | 1                                                                         | 50                                                                                        | 41                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| ROMFORD                                              | 207                                |                                                    |                                   | 202                                                                                                                           | 221                                                                                         | 1                                                                                                         | 143                                                                                  | 94                                                                                                                     | 3                                                                                                         | 3                                                            |                                                                           | 30                                                                                        | 28                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| SAFFRON WALDEN                                       | 7                                  |                                                    |                                   | 114                                                                                                                           | 22                                                                                          | 2                                                                                                         |                                                                                      |                                                                                                                        | 22                                                                                                        | 20                                                           |                                                                           | 92                                                                                        | 89                                                |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| STANSTED                                             | 13                                 |                                                    |                                   | 435                                                                                                                           | 78                                                                                          |                                                                                                           | 73                                                                                   | 88                                                                                                                     | 17                                                                                                        | 17                                                           |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| TENDRING                                             | 139                                |                                                    |                                   | 234                                                                                                                           |                                                                                             |                                                                                                           | 88                                                                                   | 70                                                                                                                     | 1                                                                                                         |                                                              |                                                                           |                                                                                           |                                                   |                                                                                     |                                                            |                                                                                                    |                                                               |                                                                                           |                                                |    |    |
| RURAL TOTAL                                          | 3080                               | 698                                                | 1308                              | 6270                                                                                                                          | 2055                                                                                        | 156                                                                                                       | 1701                                                                                 | 1325                                                                                                                   | 200                                                                                                       | 170                                                          | 8                                                                         | 429                                                                                       | 459                                               | 120                                                                                 | 120                                                        | 12                                                                                                 | 20                                                            | 17                                                                                        | 2                                              |    |    |
| BORO' & URBAN TOTAL                                  | 9052                               | 1292                                               | 4329                              | 27369                                                                                                                         | 5682                                                                                        | 79                                                                                                        | 9029                                                                                 | 9277                                                                                                                   | 927                                                                                                       | 748                                                          | 29                                                                        | 23                                                                                        | 1524                                              | 1412                                                                                | 3                                                          | 66                                                                                                 | 64                                                            | 9                                                                                         | 24                                             | 21 | 12 |
| TOTAL FOR ADMINIS-<br>TRATIVE COUNTY                 | 12132                              | 1990                                               | 6237                              | 33639                                                                                                                         | 7737                                                                                        | 235                                                                                                       | 10730                                                                                | 10602                                                                                                                  | 1127                                                                                                      | 918                                                          | 29                                                                        | 31                                                                                        | 1953                                              | 1871                                                                                | 3                                                          | 186                                                                                                | 184                                                           | 21                                                                                        | 44                                             | 38 | 14 |







Tables XX and XXI are the result of the careful scrutiny of the records of all patients at the end of each year. Their submission to the Ministry of Health is still optional and therefore no comparative returns for the Country are available. In the meantime, however, they are serving a very useful purpose by assuring an annual overhaul of all the records of patients which eliminates the possibility of certain cases being overlooked. The real object of the tables is to show the results which are being obtained from the treatment provided under the Tuberculosis Scheme and it will be interesting to compare the results obtained in the various Counties if and when the Ministry of Health decide to publish returns compiled from these tables.

### The County Scheme.

**DISPENSARIES AND VISITING STATIONS.** Table XXII shows the dispensaries and visiting stations as at the end of 1929. During the year a new dispensary was opened in connection with the Combined Treatment Centre at Brentwood to serve the Brentwood Urban and the Billericay Rural Districts. This is a large scattered area and although there has long been a need for a dispensary for the district the number of patients who find it convenient to attend the dispensary is small.

**LIGHT TREATMENT.** It will be seen from table XVII on page 63 that the total number of attendances made by patients to hospitals for the purpose of receiving light treatment was 1,128. During 1928 the number of such attendances was 1,008. Most of these attendances were at the London Hospital and were made by patients whose homes were within easy reach of the hospital. As in former years, a few patients, whose homes were too far from the hospital to enable them to travel daily for treatment, were boarded out in London near to the hospital. In several other cases season tickets were provided by the County Council owing to the inability of the patient to afford the railway fare.

Light Treatment continues to be given to patients admitted to the Ilford Sanatorium under the County Scheme.

**X-RAY FACILITIES.** Attention has already been drawn to the increased use of the X-ray facilities available. The importance of chest radiology is being generally recognised, both as an aid to diagnosis and to assist in following the progress or otherwise of patients under special forms of treatment. If X-ray films are to serve their purpose it is essential that they should be of first class quality.

**SHELTERS.** The shelters available for use by patients at their own homes were much appreciated, an average number of 81 being kept occupied during the year. As far as possible shelters were only supplied to those patients who were willing to live in them throughout the year and not merely during fine weather.

**EXTRA NOURISHMENT.** The amount expended during the year upon extra nourishment in the form of milk was £56 1s. 8d. The requirements of the Ministry of Health in regard to patients eligible for Extra Nourishment are observed when recommendations are being considered.

**TRAVELLING FACILITIES FOR PATIENTS.** An amount of £83 7s. 8d. was expended during the year in providing necessitous patients with free travelling vouchers upon their admission and discharge from Institutions.



TABLE XXII.

## DISPENSARIES AND VISITING STATIONS AT 31st DECEMBER, 1929.

| Address.                                                 | Hours of Attendance.                                                                                                                                                                         | Tuberculosis Officer.                                                               |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 BARKING—<br>37, Linton Road                            | Mondays, 3 to 5 p.m.<br>Thursdays, 10.30 a.m. to 12.30 p.m.                                                                                                                                  | C. Leonard Williams, B.Sc.<br>M.R.C.S., L.R.C.P., D.P.H.                            |
| 2 BRAINTREE—<br>71, Rayne Road                           | Wednesdays, 11.30 a.m. to 1 p.m.                                                                                                                                                             | P. J. Gaffikin, M.C., M.D.,<br>B.Ch., B.A.O., D.P.H.                                |
| 3 BRENTWOOD—<br>39, Queens Road                          | Wednesdays, 4 to 6 p.m.                                                                                                                                                                      | V. Feldman, M.D., M.R.C.S.,<br>L.R.C.P., D.P.H.                                     |
| 4 BRIGHTLINGSEA—<br>New Church Schools                   | Wednesdays, 1st and 3rd in each month,<br>2 to 3 p.m.                                                                                                                                        | W. A. Milne, M.B., Ch.B.,<br>D.P.H.                                                 |
| 5 CHELMSFORD—<br>General Hospital,<br>London Road        | Fridays, 2 to 4 p.m.                                                                                                                                                                         | J. S. Bradshaw, M.B., Ch.B.,<br>D.P.H.                                              |
| 6 CLACTON—<br>Skelmersdale Road                          | Fridays, 11 a.m. to 12 noon                                                                                                                                                                  | W. A. Milne, M.B., Ch.B.,<br>D.P.H.                                                 |
| 7 COLCHESTER—<br>12, Trinity Street                      | Tuesdays, 10.30 a.m. to 12.30 p.m.<br>Thursdays, 10.30 a.m. to 12.30 p.m.                                                                                                                    | W. F. Corfield, M.D., D.P.H.<br>W. H. Alderton, M.C., M.R.C.S.,<br>L.R.C.P., D.P.H. |
| 8 DAGENHAM—<br>25, Alibon Road                           | Thursdays, 10 a.m. to 12 noon and 2 to<br>4 p.m.                                                                                                                                             | W. L. Yell, M.D., Ch.B.,<br>D.P.H.                                                  |
| 9 DUNMOW—<br>47, Stortford Road                          | Tuesdays, 1st and 3rd in each month,<br>10.30 to 11.30 a.m.                                                                                                                                  | P. J. Gaffikin, M.C., M.D.,<br>B.Ch., B.A.O., D.P.H.                                |
| 10 EPPING—<br>Women's Institute,<br>St. John's Road      | Tuesdays, 11 a.m. to 1 p.m.                                                                                                                                                                  | L. S. Fry, B.A., M.B., Ch.B.,<br>M.R.C.S., L.R.C.P., D.P.H.                         |
| 11 GRAYS—<br>Hilldrop House,<br>59, London Road          | Mondays, 4 to 6 p.m.<br>Thursdays, 2 to 4 p.m.                                                                                                                                               | V. Feldman, M.D., M.R.C.S.,<br>L.R.C.P., D.P.H.                                     |
| 12 HALSTEAD—<br>Out-patients' Dept.,<br>Cottage Hospital | Wednesdays, 2nd and 4th in each<br>month, 11.30 a.m. to 1.30 p.m.                                                                                                                            | J. S. Ranson, M.R.C.S.,<br>L.R.C.P., D.P.H.                                         |
| 13 HAEWICH—<br>27, West Street                           | Tuesdays, 11 a.m. to 12 noon.                                                                                                                                                                | J. Ramsbottom, M.B., Ch.B.,<br>D.P.H.                                               |
| 14 ILFORD—<br>38, Oakfield Road                          | Mondays, 7.30 to 8.30 p.m.<br>Tuesdays, 3 to 5 p.m.<br>Wednesdays, 10 a.m. to 12 noon.<br>Fridays, 4 to 6 p.m.                                                                               | W. L. Yell, M.D., Ch.B.,<br>D.P.H.                                                  |
| 15 LEYTON—<br>180, High Road                             | Mondays, 2 to 4 p.m., and 6 to 8 p.m.<br>Tuesdays, 10 a.m. to 12 noon.<br>Thursdays, 10 a.m. to 12 noon, and<br>2 to 4 p.m.<br>Fridays, 2 to 4 p.m.                                          | T. L. Omerod, M.A., M.B.,<br>B.Ch., M.R.C.S., L.R.C.P.                              |
| 16 MALDON—<br>Wantz Chase                                | Tuesdays, 2nd and 4th in each month,<br>10.30 to 11.30 a.m.                                                                                                                                  | J. S. Bradshaw, M.B., Ch.B.,<br>D.P.H.                                              |
| 17 ROMFORD—<br>29, Eastern Road                          | Tuesdays and Fridays, 9.30 a.m. to<br>12.30 p.m.                                                                                                                                             | A. Gardiner, M.B., Ch.B.,<br>D.P.H.                                                 |
| 18 SAFFRON WALDEN—<br>General Hospital                   | Tuesdays, 1st and 3rd in each month<br>2 to 4 p.m.                                                                                                                                           | S. R. Richardson, B.A., M.D.,<br>B.Ch., B.A.O., D.P.H.                              |
| †19 SOUTHEND—<br>30, Clarence Street                     | Wednesdays, 2.15 (Men) 3.15 (Women)                                                                                                                                                          | N. S. R. Lorraine, M.D., Ch.B.,<br>D.P.H., F.R.S. (Edin.)                           |
| 20 WALTHAMSTOW—<br>334, Hoe Street                       | Mondays, 2 to 4 p.m.<br>Tuesdays, 2 to 4 p.m.<br>Wednesdays, 10 a.m. to 12 noon, and<br>6 to 8 p.m.<br>Thursdays, 2 to 4 p.m.<br>Fridays, 10 a.m. to 12 noon<br>Saturdays, 10 a.m. to 1 p.m. | J. Sorley, M.A., M.D., D.P.H.,<br>L.L.B.                                            |
| 21 WEELEY—<br>Tendring R.D.C. Offices                    | Thursdays, 5 to 7 p.m.                                                                                                                                                                       | J. Ramsbottom, M.B., Ch.B.,<br>D.P.H.                                               |
| 22 WOODFORD—<br>The Shrubbery, High Rd.                  |                                                                                                                                                                                              | M. Barker, M.R.C.S., L.R.C.P.,<br>D.P.H.                                            |

† For cases from Rochford Rural District and Shoeburyness Urban District by arrangement with the County Borough of Southend.



TABLE XXIII.

## TUBERCULOSIS CARE ASSOCIATIONS IN ESSEX.

(The information given in this Table is in respect to the year ended 31st March, 1930).

| Name of Association. | Day and Time of Meetings.                                       | Income including Balance in hand.                              | Expenditure.       |                  | Total No. of Cases assisted. | Nature of Assistance Provided.                                                                                 |
|----------------------|-----------------------------------------------------------------|----------------------------------------------------------------|--------------------|------------------|------------------------------|----------------------------------------------------------------------------------------------------------------|
|                      |                                                                 |                                                                | Assistance.        | Other Items.     |                              |                                                                                                                |
| BARKING              | Third Wednesday in each month at 8 p.m.                         | £ s. d.<br>213 0 0                                             | £ s. d.<br>90 11 5 | £ s. d.<br>3 9 4 | 36                           | Extra nourishment<br>Clothing                                                                                  |
| CHELMSFORD           | Third Monday in each month at 7 p.m.                            | 338 2 4                                                        | 187 13 3½          | 38 7 1½          | 40                           | Extra nourishment<br>Convalescent treatment<br>Boots and Clothing<br>Travelling expenses<br>Loan of appliances |
| COLCHESTER           | Quarterly (no fixed dates)                                      | 6 19 8                                                         | 3 15 0             | —                | 4                            | Extra nourishment                                                                                              |
| DAGENHAM             | Third Thursday in each month at 8 p.m.                          | 402 16 3                                                       | 222 1 3            | 8 12 6           | 54                           | Extra nourishment<br>Convalescent treatment<br>Surgical appliances<br>Clothing                                 |
| HALSTEAD             | Second Tuesday in each month at 3 p.m.                          | Drawn from Central Fund of Halstead Care of Children Committee | 26 5 3             | 1 3 5            | ?                            | Extra nourishment<br>Dentures<br>Clothing, etc.                                                                |
| ILFORD               | First Thursday in each month at 7.30 p.m.                       | 594 1 3                                                        | 501 8 1            | 23 0 4           | 89                           | Extra nourishment<br>Convalescent treatment<br>Travelling expenses<br>Clothing                                 |
| LEYTON               | Third Friday in each month alternately at 6.45 p.m. & 7.30 p.m. | 651 13 7½                                                      | 366 16 11          | 103 7 2          | 102                          | Extra Nourishment<br>Convalescent treatment<br>Clothing<br>Dentures<br>Appliances<br>Advisory                  |
| ROMFORD              | Third Friday in each month at 8 p.m.                            | 259 5 11                                                       | 117 9 0            | 26 17 1          | 37                           | Extra nourishment<br>Convalescent treatment<br>Dentures                                                        |
| SAFFRON WALDEN       | Fourth Tuesday in each month at 2.30 p.m.                       | 169 7 11                                                       | 137 18 11          | 7 3 10           | 43                           | Extra nourishment<br>Convalescent treatment<br>Bed clothing                                                    |
| WALTHAMSTOW          | First Friday in each month at 7 p.m.                            | 397 2 0                                                        | 209 16 2           | 38 2 11          | 213                          | Extra nourishment<br>Convalescent treatment<br>Dentures<br>Appliances, &c.<br>Advisory                         |



CARE ASSOCIATIONS. Table XXIII. shows the Care Associations established in the County at the end of 1929. In the Annual Report for 1928 reference was made to the formation of a new Care Association at Dagenham. The Association has been greatly assisted in its work by financial aid from the National Association for the Prevention of Tuberculosis who have contributed 50 per cent. towards the cost of clerical assistance.

Whilst excellent work continues to be rendered to the County Scheme by the various Care Associations, lack of funds would seem to limit the scope of their work. There is no doubt that the obtaining of funds from voluntary sources is not an easy matter and calls for sustained effort. The County Council have made the following grants to the various Care Associations in respect of "After Care" for the year ended 31st March, 1930, which are additional to the grant of £20 per annum available for expenses incurred in connection with printing, stationery, postages, &c., and are based on the amount raised from voluntary or private sources. :—

| Care Association. | £<br>Amount of<br>Grant. | Care Association.    | £<br>Amount of<br>Grant. |
|-------------------|--------------------------|----------------------|--------------------------|
| Barking .. ..     | 20                       | Ilford .. ..         | 80                       |
| Chelmsford .. ..  | 50                       | Leyton .. ..         | 60                       |
| Colchester .. ..  | *                        | Romford .. ..        | 40                       |
| Dagenham .. ..    | 50                       | Saffron Walden .. .. | 15                       |
| Halstead .. ..    | 15                       | Walthamstow .. ..    | 45                       |

\*An insufficient amount was raised from voluntary or private sources to enable a grant to be made.

### Medical and Nursing Services.

(a) TUBERCULOSIS OFFICERS. A list of alterations in the Medical Staff is shown on page 10.

(b) CONSULTANTS. Sir Henry J. Gauvain has continued to serve as Consultant for Surgical Tuberculosis and his work in this capacity has again proved very valuable in enabling an early and correct diagnosis to be made in difficult cases and in prescribing the best form of treatment. The arrangement whereby he sees Essex patients at Farringdon Street Dispensary, London, in addition to the monthly visits he pays to institutions and dispensaries in the County, has been continued.

Dr. W. Burton Wood's appointment as Consultant in cases of Pulmonary Tuberculosis has also been continued with much success and the appointment is a valuable asset to the County Tuberculosis Scheme. In addition to enabling a definite diagnosis to be made in difficult "Observation" cases it has also rendered possible the carrying out of modern forms of treatment in Pulmonary Tuberculosis. Special arrangements have now been made whereby Dr. Wood holds a clinic at the Victoria Park Chest Hospital on two Wednesday afternoons each month to which Essex Tuberculosis Officers send those cases presenting special difficulties. This arrangement is much appreciated.

(c) TUBERCULOSIS NURSES. A list of alterations to the Tuberculosis Nursing Staff is shown on page 10. The equivalent number of whole-time Tuberculosis Nurses was approximately 19.



## PART III.

**MATERNITY AND CHILD WELFARE ACT, 1918.**  
**NOTIFICATION OF BIRTHS ACTS, 1907 & 1915.**

(1) COUNTY AREA. The County Council was responsible during the year 1929 for administering the above Acts in the following 33 Sanitary Districts :—

| Sanitary Districts.       | Acreage | Census<br>Popula-<br>tion,<br>1921. | No. of Births<br>notified by |                            | No. of<br>Births<br>Unnoti-<br>fied. | Deaths<br>of<br>Infants<br>under<br>1 year. | Deaths<br>of<br>Mothers<br>in child-<br>birth. | No. of Notifi-<br>cations of |                                     |
|---------------------------|---------|-------------------------------------|------------------------------|----------------------------|--------------------------------------|---------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------|
|                           |         |                                     | Mid-<br>wives.               | Doctors<br>and<br>Parents. |                                      |                                             |                                                | Puer-<br>peral<br>Fever.     | Oph-<br>thalmia<br>Neona-<br>torum. |
| Maldon B. ...             | 3,028   | 6,590                               | 31                           | 64                         | ...                                  | 3                                           | ...                                            | ...                          | ...                                 |
| Saffron Walden B. ...     | 7,502   | 5,874                               | 35                           | 35                         | 5                                    | 1                                           | ...                                            | ...                          | ...                                 |
| Benfleet U. ...           | 6,319   | 6,136                               | 19                           | 17                         | 1                                    | 2                                           | ...                                            | ...                          | ...                                 |
| Braintree U. ...          | 2,224   | 6,970                               | 96                           | 38                         | ...                                  | 12                                          | 1                                              | ...                          | ...                                 |
| Brentwood U. ...          | 460     | 6,853                               | 72                           | 31                         | 2                                    | 4                                           | ...                                            | ...                          | ...                                 |
| Brightlingsea U. ...      | 2,867   | 4,500                               | ...                          | 50                         | 1                                    | 4                                           | ...                                            | 1                            | ...                                 |
| Burnham-on-Crouch U. ...  | 4,517   | 3,434                               | 13                           | 28                         | ...                                  | 3                                           | ...                                            | ...                          | 1                                   |
| Canvey Island U. ...      | 4,400   | 1,795                               | 27                           | 22                         | 1                                    | 6                                           | ...                                            | ...                          | ...                                 |
| Chingford U. ...          | 2,808   | 9,482                               | 95                           | 169                        | 51                                   | 3                                           | 1                                              | 3                            | ...                                 |
| Epping U. ...             | 1,420   | 4,196                               | 23                           | 55                         | 2                                    | 4                                           | ...                                            | ...                          | ...                                 |
| Frinton-on-Sea U. ...     | 422     | 3,032                               | 2                            | 12                         | ...                                  | 1                                           | ...                                            | ...                          | ...                                 |
| Halstead U. ...           | 647     | 5,923                               | 22                           | 54                         | ...                                  | 4                                           | ...                                            | ...                          | ...                                 |
| Hornchurch U. ...         | 6,783   | 10,891                              | 117                          | 151                        | 11                                   | 12                                          | 1                                              | 1                            | 2                                   |
| Rayleigh U. ...           | 5,278   | 3,650                               | 3                            | 16                         | ...                                  | 3                                           | ...                                            | ...                          | ...                                 |
| Shoeburyness U. ...       | 1,036   | 6,413                               | 102                          | 5                          | 2                                    | 2                                           | ...                                            | ...                          | ...                                 |
| Walton-on-the-Naze U. ... | 2,046   | 3,664                               | 1                            | 35                         | 1                                    | 1                                           | ...                                            | ...                          | ...                                 |
| West Mersea U. ...        | 3,185   | 1,908                               | 5                            | 22                         | 1                                    | 1                                           | 1                                              | 1                            | ...                                 |
| Witham U. ...             | 3,713   | 3,717                               | 53                           | 21                         | 1                                    | 5                                           | ...                                            | ...                          | ...                                 |
| Wivenhoe U. ...           | 1,564   | 2,329                               | 13                           | 17                         | 2                                    | 1                                           | ...                                            | ...                          | ...                                 |
| Belchamp R. ...           | 26,500  | 4,219                               | 20                           | 14                         | ...                                  | 4                                           | ...                                            | ...                          | ...                                 |
| Billericay R. ...         | 49,394  | 24,211                              | 360                          | 207                        | 10                                   | 38                                          | 1                                              | ...                          | 2                                   |
| Braintree R. ...          | 62,349  | 18,779                              | 164                          | 138                        | 10                                   | 16                                          | ...                                            | 1                            | ...                                 |
| Bumpstead R. ...          | 11,874  | 2,376                               | 19                           | 9                          | 1                                    | 3                                           | ...                                            | ...                          | ...                                 |
| Dunmow R. ...             | 73,503  | 15,352                              | 103                          | 111                        | 13                                   | 17                                          | ...                                            | ...                          | 2                                   |
| Epping R. ...             | 59,055  | 14,625                              | 163                          | 69                         | 15                                   | 12                                          | 1                                              | 1                            | ...                                 |
| Halstead R. ...           | 38,712  | 9,743                               | 52                           | 63                         | 20                                   | 3                                           | 1                                              | ...                          | ...                                 |
| Malden R. ...             | 82,342  | 16,479                              | 118                          | 79                         | 2                                    | 12                                          | 1                                              | ...                          | ...                                 |
| Ongar R. ...              | 47,236  | 10,054                              | 77                           | 98                         | 17                                   | 10                                          | 1                                              | ...                          | ...                                 |
| Rochford R. ...           | 39,006  | 11,282                              | 207                          | 343                        | 43                                   | 10                                          | 3                                              | 2                            | 1                                   |
| Romford R. ...            | 16,381  | 9,467                               | 105                          | 80                         | 16                                   | 10                                          | 1                                              | 3                            | ...                                 |
| Saffron Walden R. ...     | 59,975  | 10,087                              | 84                           | 34                         | 12                                   | 8                                           | ...                                            | ...                          | ...                                 |
| Stansted R. ...           | 22,954  | 6,828                               | 56                           | 45                         | 6                                    | 7                                           | ...                                            | ...                          | 1                                   |
| Tendring R. ...           | 73,131  | 21,721                              | 230                          | 161                        | 22                                   | 21                                          | 2                                              | 1                            | ...                                 |
| Totals ...                | 702,631 | 272,580                             | 2,487                        | 2,293                      | 268                                  | 250                                         | 15                                             | 14                           | 9                                   |

(2) MEDICAL STAFF. Particulars in regard to changes in the Medical Staff is given on page 10. In regard to those members undertaking child welfare work the following alterations were made during the year.

Dr. E. U. Woodrey, School Medical Inspector, Woodford Area, who also performed child welfare duties at Abridge, resigned in March, 1929, and Dr. E. L. Ewan was appointed in her place as and from May, 1929.



The resignation of Dr. R. F. Tredre in July, 1929, was the opportunity for making certain necessary re-adjustments, and as and from September, 1929, Dr. E. L. Ewan took over the child welfare work in the Ongar Rural District. Dr. B. F. Beatson was transferred from Romford at the same time and commenced child welfare duties in the Brentwood and Billericay Area, Dr. Archibald Gardiner taking his place at Romford. Temporary arrangements were also made for Dr. Annie Gardiner to attend the Brentwood and Warley Centres.

To enable Dr. Mary D. Rankine to take over additional central office duties, Dr. J. S. Bradshaw since June, 1929, has attended the Silver End and Rivenhall Centre and Dr. P. J. Gaffikin the Bocking Child Welfare Centre. Dr. Annie Gardiner relieved Dr. Rankine of the Hatfield Peverel and Terling Centres from August, 1929, until the end of the year, when Dr. Evelyn Pirrie took over these two Centres.

Dr. Evelyn Pirrie also took the place of Dr. Norah Tregear at the Burnham-on-Crouch Child Welfare Centre as the latter left the County in August, 1929.

Dr. Annie Middlebrook who attended the Harlow, Hatfield Heath and Little Hallingbury, Matching and Sheering Child Welfare Centres, left at the end of the year and her place has been taken by Dr. Teresa G. Cunningham, of Waltham Abbey.

The arrangements for the attendance of an Orthopaedic Surgeon (Mr. B. Whitchurch Howell, F.R.C.S.) at Clinics, at a fee of £3 3s. per session, plus travelling expenses, were continued.

(3) NURSING STAFF. No material changes took place in the staff of Health Visitors performing duties under the Maternity and Child Welfare Scheme except that suitable candidates were eventually found to fill the three vacancies at Dunmow, Thaxted and Burnham indicated in the Report for the year 1928.

Miss R. A. Brown commenced at Burnham in September, 1929.

Miss M. W. Thomas and Miss D. M. Ives commenced duty at Dunmow and Thaxted respectively in October, 1929.

On 31st December, 1929, the Health Visiting Staff undertaking Child Welfare work on behalf of the County Council, numbered as follows :—

|                                                              |    |    |    |    |                                            |
|--------------------------------------------------------------|----|----|----|----|--------------------------------------------|
| Whole-time (also undertaking School and Tuberculosis duties) | .. | .. | .. | 23 | } Equivalent whole-time H.V. for C.W. = 9. |
| Whole-time (part-time C.C. and part-time L.A.)               | .. | 1  |    |    |                                            |
| Part-time (ex-District Nurse)                                | .. | 1  |    |    |                                            |

N.B.—The above figures do not include the Chief Health Nurse and her Assistant.

The District Nurse-Midwives continued to assist the Health Visitors as far as possible.

A summary of the work undertaken during the twelve months ended 31st December, 1929, is given in Table XXIV.



TABLE XXIV.

SHOWING SUMMARY OF CHILD WELFARE WORK CARRIED OUT BY EACH HEALTH VISITOR AND DISTRICT NURSE-MIDWIFE.

| Nursing Area.<br>Districts.                                                  | Notifications<br>received. |                  | H. Vs.<br>No. of Visits. |                 | D.N. Ms.<br>No. of Visits. |                 | Total<br>Visits. |                 |
|------------------------------------------------------------------------------|----------------------------|------------------|--------------------------|-----------------|----------------------------|-----------------|------------------|-----------------|
|                                                                              | Live<br>Births.            | Still<br>Births. | Pre-<br>Natal.           | Post-<br>Natal. | Pre-<br>Natal.             | Post-<br>Natal. | Pre-<br>Natal.   | Post-<br>Natal. |
| Saffron Walden B. & Saffron Walden R.<br>(part) ... ..                       | 168                        | 3                | 13                       | 290             | 760                        | 2137            | 773              | 2427            |
| Bumpstead & North Halstead and Bel-<br>champ R. ... ..                       | 94                         | 7                | 67                       | 1155            | 330                        | 588             | 397              | 1743            |
| Halstead U. & South Halstead and Bel-<br>champ R. ... ..                     | 146                        | 6                | 26                       | 1216            | 215                        | 704             | 241              | 1920            |
| Wivenhoe U. and West Mersea U. ... ..                                        | 54                         | 3                | 34                       | 478             | 74                         | 68              | 108              | 546             |
| Tendring West and Brightlingsea U. ... ..                                    | 218                        | 8                | 35                       | 995             | 708                        | 1617            | 743              | 2612            |
| Tendring East and Frinton U. ... ..                                          | 222                        | 7                | 31                       | 899             | 389                        | 353             | 420              | 1252            |
| Walton-on-Naze U. (part-time H.V.) ... ..                                    | 35                         | 1                | 34                       | 595             | —                          | —               | 34               | 595             |
| Stansted R. ... ..                                                           | 122                        | 3                | 11                       | 322             | 595                        | 620             | 606              | 942             |
| ‡Dunmow R. (South) and Braintree R.<br>(part) ... ..                         | 114                        | 6                | 8                        | 209             | 452                        | 831             | 460              | 1040            |
| Braintree U. & R. (North) ... ..                                             | 194                        | 8                | 58                       | 1145            | 336                        | 1344            | 394              | 2489            |
| Braintree R. (South) and Witham U. ... ..                                    | 268                        | 6                | 10                       | 876             | 954                        | 1051            | 964              | 1927            |
| ‡Braintree R. (North) Dunmow R. (North)                                      | 113                        | 8                | —                        | 32              | 534                        | 1186            | 534              | 1218            |
| Epping U. & R. (part) ... ..                                                 | 262                        | 7                | 8                        | 395             | 1135                       | 1591            | 1143             | 1986            |
| Ongar Rural ... ..                                                           | 173                        | 2                | 211                      | 1170            | 537                        | 391             | 748              | 1561            |
| ‡Burnham U. and Maldon R. (South) ... ..                                     | 77                         | 7                | 6                        | 665             | 514                        | 1465            | 520              | 2130            |
| Maldon B. and Maldon R. (S.W.) ... ..                                        | 130                        | 2                | —                        | 1141            | —                          | 578             | —                | 1719            |
| Maldon R. (North) ... ..                                                     | 113                        | 4                | 56                       | 625             | 406                        | 703             | 462              | 1328            |
| Chingford U. ... ..                                                          | 257                        | 7                | 7                        | 553             | —                          | —               | 7                | 553             |
| Chigwell Parish ... ..                                                       | 41                         | —                | —                        | 69              | 173                        | 257             | 173              | 326             |
| Romford R. (part) ... ..                                                     | 85                         | 1                | 2                        | 475             | 73                         | 140             | 75               | 615             |
| Hornchurch U. and Romford R. (part) ... ..                                   | 328                        | 8                | 4                        | 1254            | —                          | —               | 4                | 1254            |
| Brentwood U. part Billericay R. and<br>Romford R. (part) ... ..              | 251                        | 4                | 20                       | 777             | 1204                       | 1284            | 1224             | 2061            |
| ‡Billericay R. (part) ... ..                                                 | 355                        | 15               | 21                       | 878             | 877                        | 1164            | 898              | 2042            |
| Rochford R. (part) and Shoeburyness U. ... ..                                | 430                        | 27               | 83                       | 1914            | 500                        | 644             | 583              | 2558            |
| Rochford R., Canvey Island U., Ben-<br>fleet U. and Billericay (part) ... .. | 369                        | 11               | 27                       | 1005            | 293                        | 439             | 320              | 1444            |
| Totals ... ..                                                                | 4619                       | 161              | 772                      | 19133           | 11059                      | 19155           | 11831            | 38288           |

‡ These districts were without a Health Visitor for part of the year.

A useful Conference of Health Visitors was held on the 6th December, 1929, when addresses and discussions took place in connection with Infant Life Protection Visiting, Tuberculosis Nursing, Orthopaedics, Health Exhibitions and Propaganda.

(4) CHILD WELFARE CENTRES. Table XXV. shows the Child Welfare Centres under the County Council's Scheme.

No new Centres were established during the year except that the Voluntary Committee of the Hatfield Heath Child Welfare Centre started a Branch Centre at Little Hallingbury in May, 1929, and the Braintree Centre sessions since October, 1929, have been held on Tuesdays at the Congregational Chapel, London Road, and the Boy Scouts Hut, Braintree, alternately.

During the year weighing scales were provided by the County Council for Weighing Centres established at Newport and Purleigh.

(5) COMBINED TREATMENT CENTRES. For particulars regarding Combined Treatment Centres see page 96 of this Report.



TABLE XXV.

| Name and Address of Centre.                                                         | Approximate population served. | Sessions.                 | Total attendances of infants and children in |       | Medical Officer.   | Annual Maintenance Grant. |
|-------------------------------------------------------------------------------------|--------------------------------|---------------------------|----------------------------------------------|-------|--------------------|---------------------------|
|                                                                                     |                                |                           | 1928.                                        | 1929. |                    |                           |
|                                                                                     |                                |                           |                                              |       |                    | £ s. d.                   |
| Abridge, Parish Room ...                                                            | 1244                           | Alternate Wednesdays      | 352                                          | 342   | E. L. Ewan         | 7 10 0                    |
| Belchamp St. Paul, Gages Farm                                                       | 607                            | 2nd and 4th Thursdays     | 251                                          | 180   | J. S. Ranson       | 3 0 0                     |
| Billericay, Women's Institute Hall                                                  | 4000                           | 2nd and 4th Tuesdays      | 511                                          | 484   | B. F. Beatson      | 20 0 0                    |
| Bocking, Village Hall...                                                            | 2060                           | 2nd and 4th Thursdays     | 457                                          | 387   | P. J. Gaffikin     | 10 0 0                    |
| Braintree, Congregational Chapel, London Road                                       | 6970                           | 2nd and 4th Tuesdays      | 1850                                         | 2189  | M. D. Rankine      | 30 0 0                    |
| Boy Scouts' Hut ...                                                                 |                                | 1st, 3rd and 5th Tuesdays |                                              |       |                    |                           |
| Brentwood, Montpelier House, ...                                                    | 6853                           | Alternate Fridays         | 1910                                         | 1222  | Annie Gardiner     | 10 0 0                    |
| Brightlingsea, New Church Schools                                                   | 4500                           | 1st and 3rd Wednesdays    | 487                                          | 308   | W. A. Milne        | 20 0 0                    |
| Burnham-on-Crouch, St. Mary's Hut                                                   | 5900                           | Alternate Fridays         | 667                                          | 621   | Evelyn Pirrie      | 20 0 0                    |
| Canvey Island, Baptist Church ...                                                   | 4000                           | 3rd Wednesdays ...        | 241                                          | 343   | N. S. R. Lorraine  | 20 0 0                    |
| Chingford (South), Brotherhood Hall                                                 | 6000                           | Tuesdays ...              | 1325                                         | 1830  | M. Barker.         | 30 0 0                    |
| Chingford (North), South Room, Church Hall, The Ridgeway                            | 6000                           | Thursdays ...             | 1703                                         | 2154  | M. Barker.         | 20 0 0                    |
| Debden, Memorial Hall ...                                                           | 1214                           | 4th Wednesdays ...        | 189                                          | 198   | S. R. Richardson   | 5 0 0                     |
| Dunmow, Congregational Church Schoolroom                                            | 6795                           | 1st and 3rd Tuesdays      | —                                            | 328   | P. J. Gaffikin     | C.C. Centre               |
| Earls Colne, Village Hall ...                                                       | 2732                           | 1st and 3rd Wednesdays    | 159                                          | 177   | J. S. Ranson       | 15 0 0                    |
| Epping, Women's Institute Hall, St. John's Road                                     | 4196                           | Tuesdays ...              | 2391                                         | 2005  | A. Watney          | 20 0 0                    |
| Hadleigh, Church School ...                                                         | 2246                           | 1st and 3rd Tuesdays      | 577                                          | 753   | N. S. R. Lorraine  | 10 0 0                    |
| Halstead, Technical School ...                                                      | 5923                           | 2nd and 4th Thursdays     | 807                                          | 1018  | J. S. Ranson       | 20 0 0                    |
| Harlow, Women's Institute Club...                                                   | 3200                           | 2nd Fridays ...           | 168                                          | 221   | T. G. Cunningham   | 5 0 0                     |
| Hatfield Heath ...                                                                  | 2102                           | 4th Fridays ...           | 246                                          | 359   | T. G. Cunningham   | 10 0 0                    |
| Little Hallingbury, branch opened May, 1929, at Church Room ...                     |                                | 4th Wednesdays ...        |                                              |       |                    |                           |
| Hatfield Peverel, Village Hall ...                                                  | 1600                           | 1st and 3rd Thursdays     | 624                                          | 483   | Evelyn Pirrie      | 7 10 0                    |
| Heddinghams Y.M.C.A. Hut, Sible Heddingham and Women's Institute, Castle Heddingham | 2723                           | 1st and 3rd Tuesdays      | 401                                          | 471   | J. S. Ranson       | 15 0 0                    |
| Heybridge, Waring Hall ...                                                          | 2200                           | 1st Tuesdays ...          | 220                                          | 207   | J. S. Bradshaw     | 10 0 0                    |
| Hornchurch, Church Hall, Park Lane                                                  | 9727                           | Mondays ...               | 1006                                         | 1131  | Archibald Gardiner | C.C. Centre               |
| Laindon, Manor Hall ...                                                             | 3000                           | Wednesdays ...            | 517                                          | 1123  | B. F. Beatson      | 15 0 0                    |
| Maldon, Health Centre, Wantz Chase                                                  | 6590                           | Fridays ...               | 1680                                         | 2063  | M. D. Rankine      | 10 0 0                    |



Table XXV—continued.

| Name and Address of Centre.                               | Approximate population served. | Sessions.                 | Total attendances of infants and children in |       | Medical Officer.   | Annual Maintenance Grant. |
|-----------------------------------------------------------|--------------------------------|---------------------------|----------------------------------------------|-------|--------------------|---------------------------|
|                                                           |                                |                           | 1928.                                        | 1929. |                    |                           |
| Matching Tye, Women's Institute Hall                      | 500                            | 3rd Fridays ...           | 163                                          | 211   | T. G. Cunningham   | £ s. d.<br>5 0 0          |
| Ongar, Council Schools, Chipping Ongar                    | 5631                           | 2nd and 4th Thursdays     | 545                                          | 460   | E. L. Ewan         | 20 0 0                    |
| Parkeston, Wesleyan Schoolroom, Garland Road              | 2000                           | Alternate Tuesdays        | 277                                          | 347   | J. Ramsbottom      | 10 0 0                    |
| Pitsea, St. Michael's Hall, Rectory Road                  | 7000                           | 2nd and 4th Mondays       | 752                                          | 850   | B. F. Beatson      | 20 0 0                    |
| Radwinter ... ..                                          | 600                            | 2nd Wednesdays ..         | 183                                          | 223   | S. R. Richardson   | 5 0 0                     |
| Rainham, Social Hall...                                   | 2196                           | 1st 3rd and 5th Thursdays | 468                                          | 422   | Archibald Gardiner | C.C. Centre               |
| Ramsden Heath, Club Room, Leslie Cottage, Downham         | 1342                           | 1st Thursdays             | 164                                          | 221   | B. F. Beatson      | 7 10 0                    |
| Rayleigh, Memorial Hall ...                               | 4000                           | 2nd and 4th Tuesdays      | 406                                          | 471   | N. S. R. Lorraine  | 20 0 0                    |
| Rivenhall and Silver End (Silver End Garden Village Hall) | 1200                           | 2nd and 4th Thursdays     | 458                                          | 593   | J. S. Bradshaw     | 7 10 0                    |
| Rochford, Congregational Rooms                            | 5976                           | 2nd and 4th Mondays       | 657                                          | 827   | †N. S. R. Lorraine | 20 0 0                    |
| Saffron Walden, Central Hall, High Street                 | 5874                           | Fridays ..                | 1377                                         | 1320  | S. R. Richardson   | 20 0 0                    |
| Sheering, Parish Room ...                                 | 778                            | 1st Fridays ..            | 87                                           | 123   | T. G. Cunningham   | 5 0 0                     |
| Shoeburyness, Council Offices ...                         | 6413                           | 1st and 3rd Thursdays     | 910                                          | 817   | N. S. R. Lorraine  | 20 0 0                    |
| South Benfleet, Baptist Church (Kents Hill Road)          | 5000                           | 1st and 3rd Mondays       | 504                                          | 523   | N. S. R. Lorraine  | 20 0 0                    |
| Stansted, Central Hall ...                                | 3184                           | 1st and 3rd Wednesdays    | 586                                          | 581   | S. R. Richardson   | 15 0 0                    |
| Steeple Bumpstead, Lecture Hall                           | 1784                           | 1st and 3rd Wednesdays    | 275                                          | 202   | J. S. Ranson       | 10 0 0                    |
| Terling, Red Triangle Hut ...                             | 1250                           | 1st and 3rd Wednesdays    | 433                                          | 394   | Evelyn Pirrie      | 7 10 0                    |
| Theydon Bois, Sorrell Room ...                            | 1267                           | Fridays ...               | 465                                          | 642   | W. F. Erskine      | 5 0 0                     |
| Thundersley, Church Schools ...                           | 1972                           | 1st and 3rd Fridays       | 556                                          | 617   | N. S. R. Lorraine  | 10 0 0                    |
| Tollesbury, Parish Room ...                               | 1721                           | 3rd Tuesdays ...          | 273                                          | 225   | J. S. Bradshaw     | 10 0 0                    |
| Upminster, St. Lawrence Hall ..                           | 3559                           | Alternate Fridays         | 1110                                         | 945   | Archibald Gardiner | C.C. Centre               |
| Great Wakering, Village Hall ...                          | 2584                           | 2nd and 4th Thursdays     | 337                                          | 174   | †N. S. R. Lorraine | 12 10 0                   |
| Warley, Parochial Hall, Brentwood                         | 5974                           | Alternate Fridays         | 804                                          | 951   | Annie Gardiner     | 12 10 0                   |
| Weeley, Public Health Offices ...                         | 4000                           | 1st and 3rd Fridays       | 130                                          | 155   | J. Ramsbottom      | C.C. Centre               |
| West Mersea, Church Hall ...                              | 1696                           | 2nd Wednesdays...         | 268                                          | 248   | W. H. Alderton     | 10 0 0                    |
| Wickford, Mission Hall ...                                | 2000                           | 3rd Mondays ...           | 270                                          | 449   | B. F. Beatson      | 10 0 0                    |
| Witham, Church House, Collingwood Road                    | 3717                           | 2nd and 4th Wednesdays    | 486                                          | 544   | J. S. Bradshaw     | 20 0 0                    |
| Great Yeldham, Reading Room...                            | 1000                           | 1st and 3rd Thursdays     | 157                                          | 210   | J. S. Ranson       | 5 0 0                     |

†Until end of December, 1929.



(6) **PROVISION OF MILK.** The two schemes outlined in the report for the year 1922, for the provision of Milk (a) for districts served by Centres, and (b) for districts not served by Centres were continued, with the slight amendment to the scale for determining necessitous cases set out in the Report for 1928.

(a) *Districts served by Child Welfare Centres.* The total amount claimed from the County Council by Child Welfare Centres was £343 17s. 10d., representing assistance to 208 families.

(b) *Districts not served by Centres.* Under this scheme 128 mothers and 48 infants were granted supplies of cows' milk or dried milk for varying periods, free of charge, at a total cost of approximately £211 19s. 3d.

Dried milk was also supplied at cost price to Child Welfare Centres and persons recommended by the Health Visitors to the extent of £240 13s. 1d.

(7) **DENTAL SCHEME.** The scheme outlined in the Report for the year 1925 was continued with the amendment previously indicated increasing the County Council's contribution to Child Welfare Centre Committees from 50 per cent. to 75 per cent. of their net expenditure.

The scheme is being revised for the year 1930 in order to include the provision of dentures and full details will be given in next year's Report.

The following claims in regard to Dental Treatment carried out during the year 1929 were received :—

(a) **AREAS SERVED BY CHILD WELFARE CENTRES WHO HAVE ADOPTED THE SCHEME.**

| Centre.                     | No.<br>of cases. | Total cost<br>of treatment. |    |    | Net amount<br>paid by<br>Centre. |    |    | Amount repaid<br>by C.C. |    |    | Patients'<br>contribution. |    |    |
|-----------------------------|------------------|-----------------------------|----|----|----------------------------------|----|----|--------------------------|----|----|----------------------------|----|----|
|                             |                  | £                           | s. | d. | £                                | s. | d. | £                        | s. | d. | £                          | s. | d. |
| Braintree and<br>Bocking .. | 35 ..            | 22                          | 8  | 0  | 9                                | 2  | 0  | 6                        | 16 | 5  | 13                         | 6  | 0  |
| Epping ..                   | 2 ..             | 2                           | 2  | 0  | 1                                | 11 | 7  | 1                        | 3  | 7  | 10                         | 6  |    |
| Hatfield Heath              | 3 ..             | 2                           | 7  | 0  | 2                                | 7  | 6  | 1                        | 15 | 6  | —                          |    |    |
| Hatfield Peverel            | 4 ..             | 1                           | 14 | 0  | 1                                | 1  | 0  | 15                       | 8  |    | 13                         | 0  |    |
| Maldon ..                   | 8 ..             | 5                           | 15 | 6  | 5                                | 15 | 6  | 4                        | 6  | 7  | —                          |    |    |
| Terling ..                  | 4 ..             | 2                           | 12 | 6  | 2                                | 12 | 6  | 1                        | 19 | 4  | —                          |    |    |
| Warley ..                   | 1 ..             | 1                           | 11 | 6  | 1                                | 1  | 0  | 15                       | 9  |    | 10                         | 6  |    |
| —                           | —                | —                           | —  | —  | —                                | —  | —  | —                        | —  | —  | —                          | —  | —  |
|                             | 57 ..            | £38                         | 10 | 6  | £23                              | 11 | 1  | £17                      | 12 | 10 | £15                        | 0  | 0  |
| —                           | —                | —                           | —  | —  | —                                | —  | —  | —                        | —  | —  | —                          | —  | —  |

N.B.—In addition some Centres have provided dentures out of voluntary funds.



## (b) OTHER AREAS.

| District.          | No. of cases. | Cost of Treatment. |    |    |    |    | Patients' contribution. |    |    |
|--------------------|---------------|--------------------|----|----|----|----|-------------------------|----|----|
|                    |               | £                  | s. | d. |    |    | £                       | s. | d. |
| Belchamp R. .. ..  | 1             | 1                  | 16 | 6  | .. | .. | 10                      | 6  |    |
| Braintree R. .. .. | 5             | 4                  | 14 | 6  | .. | .. | 1                       | 1  | 0  |
| Dunmow R. .. ..    | 5             | 4                  | 18 | 0  | .. | .. | 10                      | 6  |    |
| Maldon R. .. ..    | 6             | 3                  | 13 | 6  | .. | .. | 1                       | 1  | 0  |
| Romford R. .. ..   | 1             | 2                  | 2  | 0  | .. | .. | —                       |    |    |
|                    | 18            | £17                | 4  | 6  | .. | .. | £3                      | 3  | 0  |

(8) HOME HELPS. No application for assistance in regard to Home Helps was received during the year. Efforts are being made to stimulate this scheme through the local Child Welfare Centre Committees.

(9) TRAVELLING EXPENSES OF MOTHERS ATTENDING CHILD WELFARE CENTRES. In exceptional cases, where there is no public omnibus service available, the Ministry of Health have approved of the Council assisting in defraying the cost of hiring a conveyance for mothers and babies living some distance from the Child Welfare Centre. Arrangements have been made to this effect at Braintree, Debden, Epping, Silver End and Rivenhall, Stansted and Terling.

(10) PUBLIC HEALTH (NOTIFICATION OF PUERPERAL FEVER AND PUERPERAL PYREXIA) REGULATIONS, 1926. During the year ended 31st December, 1929, copies of notifications made by medical practitioners were received from Medical Officers of Health in the Administrative County and the County Child Welfare area as follows :—

|                      | Administrative County. | C.C. Child Welfare Area. |
|----------------------|------------------------|--------------------------|
| Puerperal Fever ..   | 54                     | 14                       |
| Puerperal Pyrexia .. | 111                    | 42                       |

(See also pages 86 and 90).

(i) *Obstetric Specialist.* On 26th September, 1929, Dr. Frances Mabel Huxley resigned as one of the Obstetric Specialists for the County owing to increasing pressure of work in London.

The arrangements for the services of Dr. Andrew McAllister, F.R.C.S., referred to in last year's report, were continued.

During the year 1929 the Obstetric Specialist was called in respect of the following patient only :—

*Mrs. S.*, notified as suffering from Puerperal Fever. Specialist reported :—

“ Unconscious of questions asked or able to reply. T105 P128. Incontinent  
“ (urine and faeces). Uterus bulky : soft, obviously septic. Discharge  
“ purulent.

“ Treatment—Under anaesthesia retained products removed. (No placenta).  
“ douching, glycerine drainage (for repeated treatment).

“ Pathological Report—Uterine swab. Haemolytic Streptococci. Blood  
“ negative.”

Patient subsequently died.



(ii) *Institutional Treatment.* Under the arrangements for hospital treatment for patients suffering from Puerperal Fever or Puerperal Pyrexia, five patients were admitted as follows :—

| Patient.                                                                                                                                                                              | Hospital.                     | Admitted.  | Discharged. | Hospital and Ambulance fees paid by C.C. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------|-------------|------------------------------------------|
| Mrs. J. ..                                                                                                                                                                            | Isolation Hosp., Colchester   | .. 21-1-29 | .. 16-3-29  | .. £25 9 0                               |
| Medical Report—Temp. 102.0 on admission. Lochia slightly offensive. Breath very offensive. Breasts sore. Abscess developed on site of injection. Healed on discharge.                 |                               |            |             |                                          |
| Mrs. H. ..                                                                                                                                                                            | Isolation Hosp., Colchester   | .. 31-1-29 | .. 16-3-29  | .. £20 19 0                              |
| Medical Report—Temp. 101.6 on admission. Lochia brownish yellow and offensive. Tender over uterus. Constipated. Developed two abscesses and sloughs over sites of injection. Healed.  |                               |            |             |                                          |
| Mrs. M. ..                                                                                                                                                                            | Chelmsford & Essex            | .. 25-2-29 | .. 20-3-29  | .. £12 9 0                               |
| Medical Report—Admitted on a diagnosis of puerperal sepsis. Suffering from cellulitis of leg not puerperal in origin. Developed abscess of buttock due to serum injection. Recovered. |                               |            |             |                                          |
| Mrs. B. ..                                                                                                                                                                            | Chelmsford & Essex            | .. 12-3-29 | .. 6-4-29   | .. £11 5 0                               |
| Medical Report—Puerperal Pyrexia. Treated with Vaginal douches and Anti-streptococcal serum. Did well. Stay prolonged owing to attack of serum sickness. Recovered.                   |                               |            |             |                                          |
| Mrs. W. ..                                                                                                                                                                            | M.A.B. Hosp., (North Western) | 26-6-29    | .. 24-7-29  | .. £32 7 0                               |
| Medical Report—Local uterine sepsis. Slight degree of pelvic peritonitis. Recovered.                                                                                                  |                               |            |             |                                          |

(iii) *Skilled Nursing.* The arrangements were continued with the Essex County Nursing Association for the provision of skilled nursing in the homes of patients when the circumstances render the removal of the patient to hospital difficult or impossible.

(iv) *Bacteriological Examinations* (a) *lochia* (b) *blood*. Facilities for these examinations under the County Laboratory Scheme were available.

(11) PUBLIC HEALTH (OPHTHALMIA NEONATORUM) REGULATIONS, 1926. The arrangements made under these Regulations were fully set out in the Report for the year 1927.

During the year ended 31st December, 1929, copies of 75 notifications of Ophthalmia Neonatorum, made by medical practitioners to Medical Officers of Health in the Administrative County, were received. (See page 86 and 90).

(12) HOSPITAL TREATMENT FOR MATERNITY PATIENTS. The arrangements with certain hospitals for the admission of the following types of maternity patients were continued :—

- (a) Complicated or difficult cases of confinement where hospital treatment is essential.
- (b) Cases of confinement where, in the opinion of the Medical Attendant, the patient cannot with safety be confined in her own home.



During the year ten patients were admitted under this scheme at a cost of £54 2s., the amount recovered from patients being £17 7s.

(13) *TREATMENT OF MINOR AILMENTS—CHILDREN UNDER SCHOOL AGE.* This scheme was continued and 17 children under school age received operative treatment during the year.

(14) *TREATMENT OF ORTHOPAEDIC PATIENTS.* Full details of the scheme for the treatment of orthopaedic patients adopted by the Public Health and Education Committees were given in the Annual Report for 1927.

The following summary of developments during the year 1929 and work carried out under the scheme will be of interest.

(a) *Number of Cases on Books.* At the end of 1929, 926 cases had been dealt with under the scheme since its inception. Of these about 286 have completed their treatment or left the County area, so that approximately 640 cases require treatment, supervision, or observation.

(b) *Ascertainment and Re-examination Clinics.* During 1929 Mr. Whitchurch Howell attended 58 clinic sessions for the County Council in the districts shown below, and carried out 952 examinations of County patients.

| Orthopaedic Clinic. |    |    |    | No. of Sessions. |    | No. of examinations. |  |
|---------------------|----|----|----|------------------|----|----------------------|--|
| Braintree           | .. | .. | .. | 3                | .. | 70                   |  |
| Brentwood           | .. | .. | .. | 2                | .. | 38                   |  |
| Chelmsford          | .. | .. | .. | 3                | .. | 26                   |  |
| Clacton             | .. | .. | .. | 3                | .. | 38                   |  |
| Colchester          | .. | .. | .. | 4                | .. | 71                   |  |
| Dagenham            | .. | .. | .. | 3                | .. | 54                   |  |
| Epping              | .. | .. | .. | 2                | .. | 15                   |  |
| Grays and Tilbury   | .. | .. | .. | 12               | .. | 292                  |  |
| Halstead            | .. | .. | .. | 3                | .. | 37                   |  |
| Harwich             | .. | .. | .. | 5                | .. | 39                   |  |
| Maldon              | .. | .. | .. | 3                | .. | 50                   |  |
| Romford             | .. | .. | .. | 3                | .. | 84                   |  |
| Saffron Walden      | .. | .. | .. | 2                | .. | 10                   |  |
| Southend            | .. | .. | .. | 1                | .. | 16                   |  |
| Stansted            | .. | .. | .. | 2                | .. | 11                   |  |
| Woodford            | .. | .. | .. | 7                | .. | 101                  |  |
|                     |    |    |    | —                |    | —                    |  |
|                     |    |    |    | 58               | .. | 952*                 |  |
|                     |    |    |    | —                |    | —                    |  |

\*Includes 863 Examinations of School Children.

(c) *Hospital Treatment.* The following figures show the position regarding institutional treatment on 1st January, 1929, as compared with that on 1st January, 1930 :—

| No. recommended and accepted by<br>Committee for hospital treatment, |    |      |    |            | Being investigated. |      |   |    | Total. |
|----------------------------------------------------------------------|----|------|----|------------|---------------------|------|---|----|--------|
| Education.                                                           |    | C.W. |    | Education. |                     | C.W. |   |    |        |
| 1-1-29                                                               | .. | 13   | .. | 1          | 26                  | ..   | 5 | .. | 45     |
| 1-1-30                                                               | .. | 5    | .. | 3          | 25                  | ..   | 3 | .. | 36     |



### Number in Hospital under the County Scheme.

|        |    | Education. |    |    | Child Welfare. |  | Total.   |
|--------|----|------------|----|----|----------------|--|----------|
| 1-1-29 | .. | 11 1/3rd   | .. | .. | 1 ..           |  | 12 1/3rd |
| 1-1-30 | .. | 7          | .. | .. | 1 ..           |  | 8        |

(NOTE:—The 1/3rd of a bed mentioned above means that the County Council was only responsible for one third of the cost of the hospital treatment of one patient.)

In regard to hospital treatment under the County Council's arrangement, during the year 48 Education and 8 Child Welfare patients completed hospital treatment, and 61 Education and 8 Child Welfare patients were admitted into Hospital.

(d) *Treatment Centres.* During the year 1929 additional treatment centres were established at Maldon, Epping and Brentwood. Particulars are given below of the attendances during the year at the treatment centres.

The Epping and Woodford Treatment Centres were established in co-operation with the British Red Cross Society, the Society providing the equipment, masseuse and running expenses and the County Council supplying the services of the Orthopaedic Surgeon and the use of their premises.

The British Red Cross Society are to be congratulated on the steady increase in the usefulness of these two treatment centres which have now become so essential to the needs of the districts they serve.

| Clinic.                        | Masseuse.                               | County Council Patients. |                     |                          |                    |            |       |               |
|--------------------------------|-----------------------------------------|--------------------------|---------------------|--------------------------|--------------------|------------|-------|---------------|
|                                |                                         | No. of sessions.         | No. of attendances. | No. of patients treated. | Form of Treatment. |            |       |               |
|                                |                                         |                          |                     |                          | Massage.           | Exercises. | Elec. | Super-vision. |
| Grays and Tilbury              | Miss Yarborough,<br>C.S.M.M.G., M.E.    | 142                      | 2033                | 218                      | 7                  | 144        | 4     | 79            |
| Romford                        | Miss Reynard,<br>C.S.M.M.G., M.E.       | 101                      | 912                 | 69                       | 5                  | 63         | 2     | 1             |
| Woodford                       | Miss Parsons,<br>C.S.M.M.G.             | 168                      | 515                 | 44                       | 20                 | 34         | —     | 4             |
| Epping                         | Miss Parsons,<br>C.S.M.M.G.,            | 75                       | 26                  | 6                        | 3                  | 5          | 1     | —             |
| Maldon<br>(opened 9/9/29)      | Miss Hodge,<br>C.S.M.M.G., T.M.G., M.E. | 30                       | 68                  | 8                        | —                  | 6          | —     | 2             |
| Brentwood<br>(opened 25/11/29) | Miss Hodge,<br>C.S.M.M.G., T.M.G., M.E. | 8                        | 19                  | 6                        | —                  | 5          | —     | 1             |



(e) *Orthopaedic Masseuse.* The appointment of a whole-time Orthopaedic Masseuse foreshadowed in the previous year's report was made during 1929, and Miss J. L. Hodge, C.S.M.M.G., T.M.G., M.E., commenced duty in September. Already she has justified the appointment.

In addition to attendance at ascertainment clinics and the Maldon and Brentwood Treatment Centres Miss Hodge has been able to do a great deal in co-ordinating the orthopaedic work, particularly in connection with patients who have had hospital treatment. Moreover, her activities have extended to following up children suffering from surgical tuberculosis after their discharge from High Beech and other Sanatoria.

#### REPORT OF ORTHOPAEDIC MASSEUSE.

During 1929, the total number of patients brought up for examination by the Orthopaedic Surgeon was 952 as compared with 684 in the previous year, making an increase of 268.

#### *Ascertainment and Re-examination Clinics.*

With the exception of Clacton, Saffron Walden and Stansted, the number of patients has increased at each Clinic, throwing an increased amount of work on those responsible for the supervision of these cases.

#### *Treatment Centres.*

Two new Centres have been opened at Brentwood and Maldon.

(i) *Maldon.* Started in September, 1929. Numbers were too small to justify the original two sessions and the new year will be started with one session per week. This can, however, be increased as occasion demands.

(ii) *Brentwood.* Commenced November, 1929. There has been an increase in numbers, but from places like Laindon there has been a poor attendance compared with the number of patients ordered treatment by remedial exercises, etc. Help in paying bus fares has been provided by the Brentwood Care of Children Committee. This has been a drain on the slender finances of this Body. The Brentwood Red Cross Society has assisted at the Clinic and in some cases given help with transport.

(iii) *Romford.* The Masseuse, Miss Reynard, has treated 69 patients during the year, bringing the total number of attendances to 912 as compared with 116 in 1928, which, however, was not a full working year. At present two sessions per week are held and permission has been obtained for an extra session to be started when necessary.

(iv) *Grays and Tilbury.* Although the remedial treatment is carried out by the Masseuse, Miss Yarborough, much valuable help is given by the St. John's Ambulance Nurses in the supervision of appliances and the total of 2,033 patients includes these cases as well as those treated by Miss Yarborough.

(v) *Woodford and Epping.* For the full year the number of patients increased to 50 with a total of 541 attendances. The Masseuse, Miss Parsons, assisted by members of the British Red Cross Society, carries out the treatment at both Clinics.



(vi) *Dagenham*. A treatment centre is badly needed and negotiations are well on the way to provide one. Some patients attend the Romford Centre, but in a few cases the parents are unable to afford the necessary bus fares.

(vii) *Colchester Hospital*. Numbers in this area were too small to justify the establishment of a treatment centre in 1929, but at the time of writing an arrangement has been made with the Essex County Hospital for remedial treatment to be undertaken at their out-patients' Department.

*Black Notley Sanatorium.*

In every County where the Orthopaedic Scheme is well established there is a central hospital. In that hospital every branch of treatment is available. Not only is the patient's disability treated but education and training for the cripple is provided. A workshop is a necessity as it provides for the accurate fitting of instruments with a minimum of expenditure. At the same time it gives employment and training for the cripples. In one of the best known Orthopaedic Hospitals in the country, all work is done by cripples trained there or in a similar institution. We hope to have the nucleus of such a hospital in Black Notley. The ten orthopaedic beds provided there will keep hospital cases under one roof and be of value to the hospital from the point of view of probationers in training.

All over the County we find odd cases where parents refuse operation. In many cases these refusals are due to ignorance of procedure and result. For purpose of propaganda we should have clinical photographs before and after treatment. We also need Plaster Casts as concrete examples of Crippling Defects before and after treatment. These can, with very little difficulty, be obtained at such a hospital as Black Notley and can be exhibited at the various exhibitions which are held throughout the County.

These will illustrate to the general public that a child, though born deformed, need not necessarily grow up a helpless cripple.

J. L. HODGE.

(15) **NURSING HOMES REGISTRATION ACT, 1927.** A detailed report was given last year (1928 Report) of the provisions under the Act and the procedure adopted by the County Council.

The Clerk of the Council has furnished the following information in regard to Nursing Homes for the year 1929 :—

|                                                             |    |
|-------------------------------------------------------------|----|
| Number of Homes registered at 31st December, 1929, under    |    |
| Part II of Midwives and Maternity Homes Act, 1926 ..        | 35 |
| Number of Homes registered at 31st December, 1929, under    |    |
| Nursing Homes Registration Act, 1927, as—                   |    |
| (a) Maternity Homes only .. .. .                            | 15 |
| (b) Nursing and Maternity Homes .. .. .                     | 14 |
| (c) Nursing Homes only .. .. .                              | 11 |
| Number of Institutions exempted under Section II of the Act |    |
| of 1926 or Sections 6 and 7 of the Act of 1927 ..           | 1  |

See also page 87 for remarks by Inspector of Nursing Homes.



(16) GENERAL. I am indebted to Dr. Mary D. Rankine for the following report on the general aspect of the Maternity and Child Welfare work in the County area during the year under review :—

In making a general review of the Maternity and Child Welfare Services of the County a number of points require to be considered.

It is satisfactory to record that during the year there has been steady progress in this work, although doubtless much remains to be done.

#### *Maternal Mortality.*

The question of Maternal Mortality still gives a good deal of anxiety, as up to the present there has been very little improvement in this direction, the maternal death-rate remaining practically stationary.

Skilled supervision during pregnancy is absolutely necessary if this death-rate is to be reduced.

The advantages of such supervision are many, a few may be given here :—Deformities, Malpresentations, &c., may be discovered and appropriate treatment given. The toxæmias of pregnancy are detected as soon as they manifest themselves. The diagnosis and treatment of venereal diseases also fall within the scope of efficient Ante-natal care.

Dental treatment may be given when required to expectant mothers at an Ante Natal Clinic, and this alone may aid in lessening the incidence of Puerperal Sepsis.

At present many pregnant women secure little or no Ante-natal supervision and abnormalities first come to light when labour has actually begun. The risks run in such cases are obvious and many.

#### *Ante-Natal Clinics.*

At present expectant mothers are examined at the ordinary Child Welfare Centres. It is desirable for many reasons that there should be separate Clinics, and it is hoped to establish several in the near future.

The cases examined were those presented by the Midwives or those who came voluntarily, and had not engaged a doctor. In a few instances cases were sent by the private doctors. After the first examination, these expectant mothers were kept under observation, and re-examined at regular intervals. Any case presenting an abnormality was referred to the private medical practitioner.

The benefits of this care and supervision is steadily coming to be recognised by the expectant mother, and probably it is only a matter of time when every pregnant woman will regard such supervision as a matter of course.

At the Ante-natal Clinic, in addition to the actual medical examination, it is ascertained if proper arrangements for the confinement have been made. In some cases Home Helps are provided to take charge of the home and other children when the mother is in bed. Necessitous cases were also allowed milk and other help was given when necessary. A few mothers owing to unsuitable home conditions, preferred to have their confinements in a Maternity Hospital and beds were obtained for them under our scheme.



### *Child Welfare Centres.*

The care of the infant is being more and more recognised as a matter of great importance. In the first year of life it is especially desirable that careful medical supervision should be exercised in regard to the diet, and general management of the child.

The attendances at the Centres throughout the County continue satisfactory, and many show an increase in the total attendances during the year 1929 as compared with the previous one.

More Centres are required, and if such were established many mothers would take advantage of them if situated within reasonable distance from their homes. To some, however, distance presents no difficulty; in the rural areas it is not unusual for some of the mothers to walk a distance of 2 to 3 miles each way to attend the Centre.

It is a recognised fact that many of the diseases of later years have their origin during the early years of life, and it has been found that a number of children on reaching school age are suffering from defects or the results of illnesses which might have been prevented if medical advice and supervision had been available sooner. It would appear, therefore, to be of the utmost importance that the growing child should be kept under observation.

It is quite the exception now-a-days for parents to resent supervision, although there are still, unfortunately, those mothers who will not trouble to attend a Centre, but even those do not usually object to the Health Visitors' visit to the home. Attention during the year has been especially concentrated on the problems of the child between the ages of 2 and 5 years, the age during which so many escape supervision. The ordinary Child Welfare Centres are not altogether suitable for these children, as special helpers are needed to look after them, and the rooms are often not large enough to accommodate them when the ordinary infant clinic is being conducted. There is also the question of noise and it is a difficult matter, in addition, for a doctor to make a thorough examination of these children and conduct the other work as well. To deal with this problem it has been recommended that provision be made for these children in Nursery Schools, where they could be kept under observation and receive adequate medical treatment if such were found necessary. The admission of children at an earlier age into the ordinary elementary schools has also been suggested. Here they would be presented to the School Medical Officer for examination during the routine medical examination in the school. In the meantime, however, until some such arrangements can be made, the mothers are encouraged to bring their children to the Child Welfare Clinics until they reach school age.

Less than a week ago I examined a child who, as a baby, attended one of our Child Welfare Centres. At the age of 12 months the mother ceased to attend regularly and later her attendances ceased altogether, as she was under the impression that her child was progressing satisfactorily. I found, on examination, that the boy, now aged 4 years, had signs of quite severe rickets with a marked deformity of the chest. His tonsils were greatly enlarged and adenoid growths were present. In addition he had a valvular lesion of the heart, due probably to an unnoticed attack of rheumatism. The mother was more than surprised when I informed her of these defects, and I advised



her that she should immediately consult her doctor as to his condition. If this child had attended a clinic and had a medical examination at intervals all this might have been detected at a much earlier date.

Birth enquiry cards have now been drawn up, and an effort is being made to keep every child below school age under observation. Visits are made by the Health Visitors at regular intervals to the home and appropriate notes are entered on each card after the visit. These cards will be available for the School Medical Inspector's information when the child enters school. The Health Visitors at these visits encourage the mothers to attend the nearest Welfare Centre. In the rural areas, however, it sometimes happens that the Centre is too far away to make attendance possible.

At some Centres arrangements have been made to convey the mothers and children to the Centres by bus or car, the mothers paying a small proportion of the cost of the hire of such conveyance.

### *Inspection of Midwives.*

Each practising midwife receives a routine inspection at least twice a year, but visits are made at other times if the Inspector happens to be passing the Midwife's house. It has been necessary in some cases to visit more frequently, if the Midwife's mode of practice has not been entirely satisfactory. In a few cases it has been found necessary to warn certain Midwives who had failed to comply with the rules, but the greater number have carried out their duties in a satisfactory and conscientious manner, although it is still very desirable that more ante-natal supervision of the patients should be undertaken. The standard of Midwifery is constantly rising, and each Midwife is encouraged, as far as possible, to keep her methods up-to-date. Some have attended courses of post-graduate instruction at Camberwell, and a course of lectures on appropriate subjects was given at Ilford. These lectures were well attended and greatly appreciated.

During the year the Ministry of Health issued the report of the Departmental Committee on the Training and Employment of Midwives, and as the title suggests the Report deals, amongst other matters, with the training of Midwives and with methods which might be adopted to improve their conditions of employment.

This Report states :—

“ Amongst those things which concern the health and well-being of a community, maternal welfare must be given first place, and the disquieting fact that during the last ten years approximately 3,000 mothers in England and Wales have died each year in giving birth to children has rightly awakened the public conscience to the magnitude of the dangers of maternity.”

The Report goes on to state that the importance of elevating the standard of practice of Midwives and of improving the condition under which they work cannot be doubted or ignored.



### *Special Investigations.*

*Ophthalmia Neonatorum.* A Midwife must, according to the Rules of the Central Midwives Board obtain medical aid for an infant in all cases of inflammation of, or discharge from, the eyes, however slight. Each case so notified has been visited by the Inspector of Midwives as soon as possible after the notice was received in the Central Office.

### *Puerperal Pyrexia and Puerperal Fever.*

In the same way a midwife must seek medical aid for a patient who has had a rise of temperature to 100.4F for 24 hours or a recurrence of that temperature during that period. An early visit was paid to all midwives who had notified this condition, with a view to ascertaining particulars of each case, and ensuring that the midwife had taken all possible precautions against spread of infection to other patients.

Cases of puerperal fever unfortunately still occur from time to time, and early treatment is practically the only hope of recovery.

### *Infant Deaths.*

These are also investigated. At least 25 per cent. of stillbirths are due to maternal complications at birth; feebleness at birth and congenital defects or malformations are some of the other causes. Toxaemias during pregnancy are responsible for a number of infant deaths. This fact proves the need of adequate ante-natal supervision.

### *Pemphigus Neonatorum.*

Unfortunately, during the year several outbreaks of this disease occurred in certain midwives' practices. Each case was promptly investigated but for some time the matter gave considerable anxiety. Stringent precautions were taken to prevent the spread of this disease, and in a few cases it was found necessary to suspend the midwives from practice for longer or shorter periods. Special written instructions regarding this disease were sent to the midwives during the year. Fortunately these outbreaks have now ceased. Further reference to the outbreaks is made on pages 89 and 90. This is a disease of which we have not an exact knowledge, but in all probability infection is conveyed on the clothing and outfit of the midwife.

In several cases investigated it has been found that older children in the home were suffering from impetigo.

### *Investigation of Maternal Deaths.*

During the year, at the request of the Ministry of Health, special investigations have been made of the cases of maternal deaths and forms drawn up by the Ministry are used for this purpose. The information received is treated in an entirely private and confidential manner, and the forms when completed are returned to the Minister of Health.

The Ministry state that at present "The knowledge of the immediate and especially the contributory causes of maternal mortality is still too vague and general and a confidential history of the conditions leading up to or actually responsible for these deaths if available for a large number of these cases could not fail to confirm present theories or to indicate new and better methods of grappling with the problem."



It is with a view to assisting the Ministry to gain such information that these investigations have been carried out. Only one doctor objected to give the necessary assistance in the completion of this Form. All the others were good enough to give the desired information in a helpful manner.

*Nursing Homes Registration Act, 1927.*

The Nursing Homes which come within the Act are those providing nursing for persons suffering from any sickness or infirmity, and include Maternity Homes. Homes for the Aged and Infirm and Convalescent Homes, also come within the Act.

Inspection of all the Nursing Homes in the County registered under the Act has been carried out each quarter during the year. The staffing and equipment of these Homes have come in for special attention. The equipment required obviously depends to a great extent on the type of Home.

A Home registered for medical, surgical and maternity patients, will require more equipment than one registered for senile or chronic patients.

A list has been drawn up and issued to each keeper stating the minimum equipment required. Each keeper is also in possession of a copy of the Bye-Laws. In cases of infringement of these Bye-Laws in any particular Home, the keeper of such Home, has received a warning.

A number of Homes show a high standard of efficiency, others are not quite so satisfactory. It is the constant aim, however, to raise the standard of efficiency in each Home registered under the Act.

During the year a certain number of persons admitting patients into their houses and who were ignorant of their duty to register under the Act, received warning notices.

Such persons either complied with the Act by applying for registration of their premises, or they ceased to admit patients.

*Conclusion.*

As in former years, we have been greatly assisted at our clinics by the local Voluntary Child Welfare Committees, who have been willing to help us in every possible way.

In addition much strenuous and responsible work has been carried out by our Health Visitors, and a considerable share of the success of our efforts is due to their help. Their efficiency in their duties reflects great credit on Miss Landon, our Chief Health Nurse, and on Miss Davieson, Chief Assistant Health Nurse, to each of whom I am in addition much indebted for their assistance in many other matters.

M. D. RANKINE.



(17) **REPORT OF CHIEF HEALTH NURSE.** The Chief Health Nurse (Miss D. M. Landon), has furnished the following report in connection with her duties during 1929 :—

*Health Visitors.* It is unfortunate that one or two areas suffered from having no Health Visitors during the early part of the year, as this means that the adjacent Health Visitors had to spend a good deal of time carrying out urgent work in these places. Apart from this the year seems to have been one of steady progress. The most useful part of the Health Visitors' work is probably the Home Visiting, but unfortunately in many areas difficulty of transport, increase of population and the number of clinics leave insufficient time for this part of the work. My assistant and I both feel that in almost all cases the work has been well and efficiently carried out.

*Infant Welfare Work.* This work continues to be considerably appreciated by the mothers and both Health Visitors and District Nurse Midwives take a very real and personal interest in this branch of the work. The Infant Welfare Clinic increases in utility, although it is still difficult to induce some of the poorest or most negligent mothers to attend.

*District Nurse-Midwives.* The Public Health duties carried out by the District Nurse-Midwives have been on the whole well performed and the District Nurses are increasingly understanding the importance of the preventive side of their work. During the past year Senior Nurses have again been sent to take the full Post-Graduate Course at Camberwell and found it very helpful.

D. M. LANDON.

### MIDWIVES ACTS, 1902-1926.

(a) **MIDWIVES ACTS AND TRAINING OF MIDWIVES.** Reference was made in my Report for the year 1928 to the Departmental Committee appointed by the Ministry of Health in 1927 to consider the working of the Midwives Acts and the training of midwives. In July, 1929, the Committee issued a report which contains over 73 conclusions and recommendations aiming at raising the status and remuneration of midwives, improving the standard of training and suggesting alterations in the provisions of the Midwives Acts.

(b) **PRACTISING MIDWIVES.** During the year under review 382 midwives notified their intention to practise in the Administrative County. Of these, 327 were actually in practice at the end of the year 1929. These midwives are classified as follows :—

| Total No. of<br>Midwives in practice<br>at end of year. | Trained.   |              | Bona-fida, including<br>untrained and L.O.S.<br>Certificated, |  |
|---------------------------------------------------------|------------|--------------|---------------------------------------------------------------|--|
|                                                         | Dependent. | Independent. |                                                               |  |
| 327 ..                                                  | 175*       | 127 ..       | 25                                                            |  |

\*Includes nurses at Barking and Ilford Municipal Homes and at Leyton and Walthamstow Nurses' Homes.



The total number of live births and still births which occurred during the year 1929 in the Administrative County was 18,844, and of these 8,245 (43.7 per cent.) were attended by midwives in the capacity of a midwife, and 3,018 (16.0 per cent.) as maternity nurses under the supervision of medical practitioners.

Each midwife was asked to state the number of confinement cases which she attended as a midwife during the year 1929, and it was found that 122 trained and 9 *bona-fide* midwives attended 10 or less cases each : 71 trained and 4 *bona-fide* attended 11—20 cases each ; 47 trained and 2 *bona-fide* attended 21—40 cases each ; 26 trained and 4 *bona-fide* 41—60 cases each ; 17 trained and 5 *bona-fide* 61—100 cases each ; and 12 trained and 1 *bona-fide* midwives attended over 100 cases each. These figures do not include cases attended by 17 midwives in nurses' homes at Leytonstone, Ilford, Walthamstow and Barking.

(c) HANDYWOMEN. Chiefly through the medium of the Health Visitors and local Registrars information is obtained in regard to births attended by uncertified women. Whenever sufficient evidence is forthcoming the whole of the facts are placed before the Committee with a view to proceedings being taken. During the year 1929 reports were received regarding 8 cases of confinement attended by eight women who were not certified and who acted as midwives without being under the direction and personal supervision of the doctor. It was not considered necessary to institute legal proceedings, but letters of warning were sent by the County Medical Officer.

(d) NOTIFICATIONS. The following list shows the number of notifications received from certified midwives in accordance with the rules of the Central Midwives Board during the year as compared with the previous four years :—

|                                                 | 1925.   | 1926.   | 1927.   | 1928.   | 1929. |
|-------------------------------------------------|---------|---------|---------|---------|-------|
| Records of Medical Aid ..                       | 1309 .. | 1492 .. | 1592 .. | 1851 .. | 2085  |
| Records of Still-birth .. ..                    | 124 ..  | 127 ..  | 122 ..  | 114 ..  | 109   |
| Deaths of Mothers .. ..                         | 6 ..    | 2 ..    | 6 ..    | 9 ..    | 6     |
| Deaths of Infants .. ..                         | 47 ..   | 54 ..   | 39 ..   | 69 ..   | 70    |
| Artificial Feeding .. ..                        | 75 ..   | 62 ..   | 51 ..   | 51 ..   | 74    |
| Liability to be a source of Infection .. ..     | 49 ..   | 86 ..   | †165 .. | †207 .. | †257  |
| Laying-out for Burial ..                        | 229 ..  | 256 ..  | 261 ..  | 222 ..  | 230   |
| Ophthalmia Neonatorum or Discharging Eyes .. .. | 89 ..   | 112 ..  | 142 ..  | 184 ..  | 250   |

† This figure includes all cases of high temperature.

The 2,085 cases (25.3 per cent.) where midwives sought the assistance of a doctor were for various reasons, namely :—



|                                      |           |                         |           |
|--------------------------------------|-----------|-------------------------|-----------|
| Albuminuria .. ..                    | 35 cases. | Pemphigus Neonatorum    |           |
| Contracted Pelvis ..                 | 5 „       | or Spots on Infant ..   | 56 cases. |
| Dangerous Feebleness of Infant .. .. | 61 „      | Phimosis .. ..          | 23 „      |
| Eclampsia .. ..                      | 7 „       | Phlebitis .. ..         | 4 „       |
| Haemorrhage :—                       |           | Placenta Adherent ..    | 81 „      |
| Ante-partum .. ..                    | 80 „      | Placenta Praevia ..     | 15 „      |
| Post-partum .. ..                    | 54 „      | Premature Birth ..      | 51 „      |
| Hydramnios .. ..                     | 1 case.   | Prolonged Labour ..     | 313 „     |
| Instrumental Assistance              | 7 cases.  | Presentation (abnormal) | 148 „     |
| Malformation of Child ..             | 22 „      | Pyrexia (High Temp.) .. | 104 „     |
| Miscarriage, Abortion ..             | 81 „      | Rigid Os .. ..          | 7 „       |
| Miscellaneous Causes ..              | 273 „     | Ruptured Perineum ..    | 360 „     |
| Ophthalmia Neonatorum                |           | Spina Bifida .. ..      | 8 „       |
| or Discharging Eyes..                | 250 „     | Thrombosis .. ..        | 2 „       |
|                                      |           | Uterine Inertia .. ..   | 37 „      |

### Puerperal Fever, Puerperal Pyrexia and Ophthalmia Neonatorum.

Special investigations were made into all cases of high temperature of mother and discharging eyes of infant in a midwife's practice. The results of these investigations showed that during 1929, in two cases of Puerperal Pyrexia and five of discharging eyes, the rules of the Central Midwives Board were not properly carried out. Warning letters were sent or verbal cautions given to the midwives concerned.

Particulars of the number of cases of Ophthalmia Neonatorum notified in the Administrative County during the year are given in the following table, together with the percentage of such cases per 1,000 births :—

#### CASES OF OPHTHALMIA NEONATORUM NOTIFIED. YEARS 1925—29.

| Year.      | Total Births. | Number of Cases notified of Ophthalmia Neonatorum. | No. of Cases per 1000 Births. |
|------------|---------------|----------------------------------------------------|-------------------------------|
| 1925 .. .. | 16,516        | 61                                                 | 3.7                           |
| 1926 .. .. | 16,743        | 72                                                 | 4.3                           |
| 1927 .. .. | 16,661        | 84                                                 | 5.0                           |
| 1928 .. .. | 17,758        | 79                                                 | 4.4                           |
| 1929 .. .. | 18,218        | 75                                                 | 4.1                           |

### Pemphigus Neonatorum.

All suspected cases of Pemphigus Neonatorum occurring in a midwife's practice are investigated with a view to seeing that every possible precaution is taken to prevent a spread of the disease.

Enquiries were made into 67 suspected cases occurring in Barking (1), Billericay R. (1), Braintree R. (4), Chelmsford R. (1), Dagenham (38), Dunmow R. (2), Grays (1), Halstead R. (1), Ilford (8), Leyton (3), Maldon B. (1), Orsett R. (2), Ongar R. (1), Romford U. (1), Tilbury (1), and Walthamstow (1).



Two midwives were sent written cautions in regard to their duty in such cases, and one midwife was reported to the Central Midwives Board for infringement of the Rules in respect of an outbreak of the disease in her practice. The Board placed the midwife on probation for 12 months.

The prevalence of the disease became so serious in the Dagenham district that a special inquiry was made in October, 1929, by a Medical Officer from the Ministry of Health. The following is a brief summary of the precautionary measures adopted :—

- (a) Circular letter sent to all registered medical practitioners, enclosing copy of the Ministry of Health Memorandum 103/Med. dated May, 1925, entitled "Pemphigus Neonatorum."
- (b) Detailed instructions in regard to the carrying out of disinfection by a midwife are set out in an explanatory pamphlet dealing with Section E of the Central Midwives Board's Rules.
- (c) All midwives received a copy of the illustrated pamphlet issued by the Central Midwives Board.
- (d) Steps were taken for each case occurring in the practice of midwives to be followed up promptly by the Inspector of Midwives.
- (e) A circular letter was sent to each midwife in the Dagenham district, enclosing a supply of certificates, one of which had to be completed by the doctor in attendance if there was any doubt as to the infectious nature of the disease.
- (f) Arrangements were made with the Medical Officer of Health of the district concerned (an autonomous child welfare area) for a complete interchange of information in regard to notification of the disease which, with the sanction of the Ministry of Health, was made compulsorily notifiable in Dagenham.

### Inspection Visits.

Nine hundred and eighteen routine visits were made to midwives during the year, and of these 538 were undertaken by Assistant County Medical Officers and 380 by the Chief Health Nurse and her Assistant.

Written cautions were sent to 14 midwives for minor infringements of the rules other than those referred to in the paragraphs relating to Puerperal Fever, Ophthalmia Neonatorum and Pemphigus Neonatorum on page 90.

Two midwives, in addition to the one referred to in connection with Pemphigus Neonatorum, were reported to the Central Midwives Board for infringement of rules. The Board postponed sentence pending further reports from the Local Supervising Authority at the end of a specified time on the conduct and mode of practice of each midwife.



## Doctors' Fees.

In accordance with Section 14 of the Midwives Act, 1918, during the year ended 31st December, 1929, the County Council paid the sum of £2,112 19s. 6d. as fees to medical practitioners and recovered from patients during the year the sum of £852 2s. 2d.

The following comparative table is of interest, shewing (a) the number of medical aid notices received from midwives during the past five years, and (b) the corresponding number of doctors' claims made against the County Council in respect of such notices. This table shows that the numbers are steadily increasing :—

| Year.   | No. of Medical Aid Notices received from Midwives, | Percentage of Confinements attended by Midwives in which medical aid was sought. |      |    | No. of Medical Aid Notices for which Doctors' claims have been received. | Total amounts of claims. |       |      | Amounts recovered from parents. |     |      |
|---------|----------------------------------------------------|----------------------------------------------------------------------------------|------|----|--------------------------------------------------------------------------|--------------------------|-------|------|---------------------------------|-----|------|
|         |                                                    |                                                                                  |      |    |                                                                          | £                        | s.    | d.   | £                               | s.  | d.   |
| 1925 .. | 1309                                               | ..                                                                               | 18.5 | .. | 665                                                                      | ..                       | 1,031 | 15 6 | ..                              | 293 | 4 8  |
| 1926 .. | 1492                                               | ..                                                                               | 20.5 | .. | 789                                                                      | ..                       | 1,323 | 2 3  | ..                              | 346 | 16 9 |
| 1927 .. | 1592                                               | ..                                                                               | 21.6 | .. | 1056                                                                     | ..                       | 1,545 | 5 0  | ..                              | 397 | 5 6  |
| 1928 .. | 1851                                               | ..                                                                               | 23.7 | .. | 1153                                                                     | ..                       | 1,825 | 2 3  | ..                              | 635 | 16 9 |
| 1929 .. | 2085                                               | ..                                                                               | 25.3 | .. | 1352                                                                     | ..                       | 2,112 | 19 6 | ..                              | 852 | 2 2  |

From the above table it will be noticed that there has been a progressive increase in the number of medical aid notices received from midwives during the past five years, and that during this period the number of claims from doctors who have responded to such calls has been doubled. From information collected by the County Medical Officer of Somerset, it would appear that in a normal midwifery service, the midwives obeying the rules of the Central Midwives Board will call in medical aid in about 28 per cent. of her cases. In Essex for the year 1929 the percentage was 25.3, so that some further increase may be expected. On the other hand, the County Council (except in necessitous cases) recovers the whole or a proportion of the fees paid to doctors under the Midwives Act, 1918, from patients according to their financial circumstances, and during the year under review £852 2s. 2d. was recovered.

The reason for this progressive increase in the number of requests for medical aid may be that midwives now attend a greater number of confinements than previously, that the population of the Administrative County is rapidly increasing, and also there is no doubt that the provisions of Section 14 of the Midwives Act, 1918, which guarantees the fee of a doctor called in by the midwife has had a marked effect on the number of medical aid notices sent by midwives.

In some counties arrangements have been made under the Midwives Act, 1926, whereby an expectant mother can, by prior payments of an agreed sum, insure against liability for payment of the doctor's fee if called in by the midwife. These arrangements are being closely observed as it has been suggested that under such a scheme the tendency is for some midwives to call in a doctor unnecessarily.



The Essex Midwives Association arranged a special course of lectures in Chelmsford which was held in May, June and July, 1929. Dr. Mary Blair gave lectures on "Complications of Pregnancy" and Dr. W. J. O'Donovan gave a lecture on "Pemphigus Neonatorum," which were greatly appreciated by the midwives who attended each lecture, the average attendance being 24.

The County Council gave a grant to defray the fees and expenses of the lecturer.

### Essex County Nursing Association.

(a) GENERAL. For the four quarters of the year 1929 the following grants were paid by the County Council to the County Nursing Association in accordance with the Agreement :—

|                                                             | £                        | s. | d. |
|-------------------------------------------------------------|--------------------------|----|----|
| (i) Cost of training District Nurse-Midwives .. ..          | 1,950                    | 0  | 0  |
| (ii) Maintenance of three Emergency Nurses .. ..            | 200                      | 0  | 0  |
| (iii) Grants to affiliated District Nursing Associations .. | 5,301                    | 14 | 11 |
| (iv) Equipping District Nurse-Midwives for new areas ..     | 90                       | 0  | 0  |
| (v) Clerical and organising expenses .. ..                  | 220                      | 0  | 0  |
| (vi) £2 per Nurse-Midwife for central expenses .. ..        | 299                      | 0  | 0  |
|                                                             | <hr/> £8,060 14 11 <hr/> |    |    |

At the time of writing the County Nursing Association have asked the County Council to assist them in regard to a deficit for the year ended 31st March, 1930, amounting to £155 17s. 5d., which, with the two previous years, amounts to £175 0s. 4d.

(b) DISTRICT NURSING ASSOCIATIONS. At the end of 1929 the number of District Nursing Associations in the Administrative County which were affiliated to the County Nursing Association and which employed 171 Nurses, was as follows :—

| No. of affiliated<br>D.N. Associations. | No undertaking Midwifery<br>and District Nursing. | No. performing Maternity<br>District Nursing duties only. |
|-----------------------------------------|---------------------------------------------------|-----------------------------------------------------------|
| 151                                     | 140                                               | 11                                                        |

A summary of the visits made by the District Nurses belonging to affiliated Associations during the past five years is given below :—

|                                  | 1925.   | 1926.   | 1927.   | 1928.   | 1929.   |             |
|----------------------------------|---------|---------|---------|---------|---------|-------------|
| Midwifery ..                     | 28,468  | 25,721  | 29,089  | 30,500  | 33,766  |             |
| Maternity ..                     | 26,932  | 28,355  | 27,445  | 30,355  | 30,393  |             |
| District General ..              | 179,412 | 185,296 | 184,577 | 193,060 | 205,600 |             |
| District Tuberculosis            | 4,374   | 4,526   | 4,674   | 4,510   | 4,928   |             |
| Health Visiting {                | 12,704  | 13,813  | 13,937  | 16,380  | 17,800  | pre-natal.  |
|                                  | 15,631  | 19,465  | 22,008  | 22,684  | 22,715  | post-natal. |
| Home visits (School Children) .. | 7,830   | 7,525   | 8,879   | 8,629   | 9,605   |             |
| Total No. of visits ..           | 275,351 | 284,701 | 290,609 | 306,118 | 324,807 |             |



Of the 151 affiliated Associations, 146 participate in the County Council's Combined Nursing Scheme.

(c) PARISHES SERVED—

|                                                              |     |
|--------------------------------------------------------------|-----|
| Number in the County (excluding extra-Metropolitan area) ..  | 377 |
| Number served by affiliated District Nursing Associations .. | 321 |

### MATERNAL MORTALITY.

The following table shows the number of maternal deaths in the Administrative County of Essex each year since 1920 :—

#### CAUSES OF MATERNAL DEATHS.

|                                              | 1929. | 1928. | 1927. | 1926. | 1925. | 1924. | 1923. | 1922. | 1921. | 1920. |
|----------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <i>Urban—</i>                                |       |       |       |       |       |       |       |       |       |       |
| Puerperal Sepsis ..                          | 21    | 21    | 20    | 14    | 6     | 16    | 15    | 11    | 19    | 27    |
| Other accidents of pregnancy and parturition | 21    | 32    | 23    | 22    | 22    | 22    | 28    | 23    | 28    | 27    |
| <i>Rural—</i>                                |       |       |       |       |       |       |       |       |       |       |
| Puerperal Sepsis ..                          | 6     | 7     | 4     | 4     | 6     | 5     | 1     | 7     | —     | 7     |
| Other accidents of pregnancy and parturition | 10    | 12    | 9     | 10    | 15    | 8     | 12    | 15    | 5     | 19    |

The following figures will be of interest in respect to twenty-five maternal deaths which occurred in the County Council's Child Welfare area during a period of about sixteen months :—

| Prim-para. | Multi-para. | Leg. | Illeg. | Period of death after delivery |                  |              | Age of Mother. |        |        |          |
|------------|-------------|------|--------|--------------------------------|------------------|--------------|----------------|--------|--------|----------|
|            |             |      |        | One day.                       | 1 day to 1 week. | Over 1 week. | Under 20.      | 20-30. | 31-40. | Over 40. |
| 15         | 10          | 24   | 1      | 8†                             | 7                | 10           | 2              | 9      | 13     | 1        |

† Includes one death during pregnancy.

The Ministry of Health issued in 1929 a Memorandum 145/M.C.W. entitled "Maternal Mortality in Childbirth—Ante-natal Clinics: Their Conduct and Scope." A copy of this was circulated to the Local Committees in charge of Child Welfare Centres and the question of establishing Ante-natal Centres in certain districts is being considered.

### HEALTH OF CHILDREN UNDER FIVE.

On 5th December, 1929, a circular letter 1054/1405 was addressed by the Ministry of Health and Board of Education to Maternity and Child Welfare Authorities and Local Education Authorities regarding the care of young children, more particularly between the ages of one and five years. An extract from the appendix to the circular letter so far as it relates to Maternity and Child Welfare work, is as follows :—

"Wherever necessary, the present arrangements should be extended as rapidly as possible so as to provide for the systematic health visiting



**TABLE XXVI.**—SHOWING COMBINED MEDICAL SERVICE SCHEMES IN OPERATION, 1929.

| Area No. | Sanitary District.                                                                                                                               | Est. Pop. 1929, for Birth rate.                 | Acreage.                                       | Date Scheme commenced. | Name of Officer.    | Duties.†                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------|------------------------|---------------------|-----------------------------------------------------------------------------|
| *1       | Lexden & Winstree R. <i>a</i> ...<br>West Mersea U. ...<br>Wivenhoe U. ...                                                                       | 18580<br>2237<br>2318                           | 66300<br>3185<br>1564                          | 1st April, 1920        | W. H. Alderton ..   | M.O.H. and Assist. C.M.O.<br>" "<br>Assistant C.M.O. only                   |
| 2        | Clacton-on-Sea U. <i>a</i> ...<br>Brightlingsea U. ...<br>Walton-on-Naze U. ...<br>Frinton-on-Sea U. ...                                         | 15510<br>4356<br>3113<br>2279                   | 4069<br>2867<br>2046<br>422                    | 1st June, 1920         | W. A. Milne ...     | M.O.H. and Assist. C.M.O.<br>Assist. C.M.O. only<br>" "<br>" "              |
| 3        | Tendring R. ...<br>Harwich Borough <i>a, b</i> ...                                                                                               | 23720<br>12160                                  | 73131<br>1541                                  | 11th Sept., 1920       | J. Ramsbottom ...   | M.O.H. and Assist. C.M.O.<br>Assist. C.M.O. only                            |
| †4       | Grays U. <i>a</i> ...<br>Tilbury U. <i>a</i> ...<br>Purfleet <i>a</i> ...<br>Orsett R. <i>a</i> ...                                              | 18480<br>17090<br>6851<br>20290                 | 1359<br>1855<br>9899<br>29185                  | 1st August, 1922       | W. T. G. Boul ..    | M.O.H. and Assist. C.M.O.<br>" "<br>" "<br>" "                              |
| 5        | Chelmsford Borough <i>a, b</i> ...<br>Chelmsford R. <i>a</i> ...                                                                                 | 23930<br>28600                                  | 3112<br>83045                                  | 1st Jan., 1923         | R. H. Vercoe ..     | M.O.H.<br>S.M.I. only                                                       |
| 6        | Saffron Walden Borough ...<br>Saffron Walden R. ...<br>Stansted R. ...                                                                           | 5656<br>9650<br>6890                            | 7502<br>59975<br>22954                         | 1st Jan., 1923...      | S. R. Richardson .. | M.O.H. and Assist. C.M.O.<br>Assist. C.M.O. only                            |
| 7        | Halstead U. ...<br>Halstead R. ...<br>Belchamp R. ...<br>Bumpstead R. ...                                                                        | 5887<br>9980<br>4090<br>2320                    | 647<br>38712<br>26500<br>11874                 | 1st Sept., 1923        | J. S. Ranson ...    | M.O.H. and Assist. C.M.O.<br>" "<br>Assist. C.M.O. only                     |
| 88       | Braintree U. ...<br>Braintree R. ...<br>Dunmow R. ...                                                                                            | 8568<br>20760<br>15510                          | 2224<br>62348<br>73503                         | 1st Oct., 1923...      | P. J. Gaffikin ...  | M.O.H. and Assist. C.M.O.<br>" "<br>" "                                     |
| 9        | Barking U. <i>a, b</i> ...                                                                                                                       | 44838<br>42160                                  | 138075<br>3805                                 | 1st April, 1920        | C. L. Williams ...  | M.O.H. and T.O.                                                             |
| 10       | Colchester Borough <i>a, b</i> ...                                                                                                               | 48350                                           | 11333                                          | 13th July, 1921        | W. F. Corfield ...  | M.O.H. and T.O.                                                             |
| 11       | Shoeburyness U. ...<br>Rochford R. ...<br>Canvey Island U. ...                                                                                   | 6413<br>32570<br>6386                           | 1036<br>50603<br>4400                          | 1st Feb., 1925...      | N. S. R. Lorraine   | M.O.H. and Assist. C.M.O.<br>Assist. C.M.O. only<br>" "                     |
| 12       | Chingford U. ...<br>Woodford U. <i>a</i> ...<br>Wanstead U. <i>a</i> ...                                                                         | 16099<br>22490<br>17950                         | 2808<br>2161<br>1679                           | 19th Oct., 1925        | M. Barker ...       | M.O.H. and Assist. C.M.O.<br>T.O. only<br>" "                               |
| 13       | Witham U. ...<br>Chelmsford B. <i>a, b</i> ...<br>Chelmsford R. <i>a</i> ...<br>Maldon B. ...<br>Maldon R. ...<br>Burnham-on-Crouch U. ...       | 4348<br>23930<br>28600<br>6612<br>16750<br>3622 | 3713<br>3112<br>83045<br>3028<br>82342<br>4517 | 20th May, 1927         | J. S. Bradshaw ...  | M.O.H. and Assist. C.M.O.<br>T.O. only<br>" "<br>" "<br>" "                 |
| 14       | Waltham Holy Cross U. <i>a</i> ...<br>Epping U. ...<br>Epping R. (less Chigwell) ...<br>Ongar R. ...<br>Buckhurst Hill U. ...<br>Loughton U. ... | 6911<br>5327<br>14077<br>10460<br>5501<br>7137  | 11017<br>1420<br>34919<br>47236<br>873<br>3961 | 24th July, 1929        | L. S. Fry ...       | M.O.H. and Assist. C.M.O.<br>Assist. C.M.O. only<br>T.O. only<br>" "<br>" " |
|          |                                                                                                                                                  | 49413                                           | 99426                                          |                        |                     |                                                                             |

\* Dr. Alderton also acts as Assist. C.M.O. in part of the Maldon area.

† Dr. W. T. G. Boul was assisted by Dr. Maud Bennett in School and Child Welfare work.

§ Dr. P. J. Gaffikin was assisted in School and Child Welfare work by Dr. Mary D. Rankine.

+ M.O.H. : Local Medical Officer of Health. Assist. C.M.O. : Assistant County Medical Officer. T.O. : Tuberculosis Officer.  
S.M.I. : School Medical Inspector. *a* Autonomous Child Welfare Areas. *b* Autonomous Education Areas.

\*\* Includes new Urban Districts—Rayleigh and Benfleet.



TABLE XXV. SUMMARY OF THE RESULTS OF THE ANALYSES OF THE SAMPLES OF THE LIGNITE FROM THE MOUNTAIN LIGNITE FIELD, ALABAMA, 1907.

| No. | Name of Sample | Proximate Analysis |                 |              |     | Ultimate Analysis |          |          |        |
|-----|----------------|--------------------|-----------------|--------------|-----|-------------------|----------|----------|--------|
|     |                | Moisture           | Volatile Matter | Fixed Carbon | Ash | Carbon            | Hydrogen | Nitrogen | Sulfur |
| 1   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 2   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 3   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 4   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 5   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 6   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 7   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 8   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 9   | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 10  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 11  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 12  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 13  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 14  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 15  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 16  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 17  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 18  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 19  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 20  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 21  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 22  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 23  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 24  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 25  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 26  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 27  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 28  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 29  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 30  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 31  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 32  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 33  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 34  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 35  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 36  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 37  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 38  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 39  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 40  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 41  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 42  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 43  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 44  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 45  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 46  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 47  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 48  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 49  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 50  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 51  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 52  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 53  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 54  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 55  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 56  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 57  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 58  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 59  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 60  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 61  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 62  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 63  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 64  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 65  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 66  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 67  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 68  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 69  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 70  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 71  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 72  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 73  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 74  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 75  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 76  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 77  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 78  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 79  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 80  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 81  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 82  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 83  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 84  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 85  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 86  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 87  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 88  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 89  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 90  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 91  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 92  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 93  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 94  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 95  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 96  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 97  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 98  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 99  | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |
| 100 | ...            | ...                | ...             | ...          | ... | ...               | ...      | ...      | ...    |

The following table gives a summary of the results of the analyses of the samples of the lignite from the Mountain Lignite Field, Alabama, 1907. The table is arranged in two columns, the first column giving the name of the sample and the second column giving the results of the analyses. The results are given in percentages.



children up to the age at which they enter school. In the case of children between the ages of one and five it is not, of course, necessary to arrange for such frequent visits as are usually paid to the homes of children during the first year of life.

Facilities will be required for the medical examination of children of these ages in cases where the Health Visitor is doubtful as to their health or physical condition, and for the treatment of any defects or diseases which may be discovered at the examination. Where possible, parents should be persuaded to have the child examined by their ordinary medical attendant, who would himself undertake any treatment which might be required, but it would be necessary for the Authority to arrange for facilities for examination and treatment to be available for other children at a clinic or hospital. In many cases it may be possible to utilise school clinics for this purpose.

In some areas the Maternity and Child Welfare Authorities may decide to supplement these arrangements by the provision of Day Nurseries for children whose mothers go out to work, or whose home conditions are such that their health would benefit by the daily supervision which can be secured in this way."

This matter will receive the consideration of the appropriate County Committees during the year 1930.

### **COMBINED MEDICAL SERVICE.**

The Combined Medical Service Scheme outlined in detail in previous reports was continued during the year. Table XXVI. gives details of the 14 schemes in operation on 31st December, 1929.

The Medical Officer of Health for the Waltham Holy Cross Urban District resigned during the year, and with the approval of the County Council, Dr. L. S. Fry, Assistant County Medical Officer for the district, took up the appointment of Medical Officer of Health on 24th July, 1929, thus extending the combined medical service scheme.

The new Urban District of Purfleet was formed in the Orsett Area on 1st April, 1929, and the combined medical officer for Grays, Tilbury and Orsett, Dr. W. T. G. Boul, was appointed Medical Officer of Health of the new district.

The termination of the arrangements with the Dagenham Urban District foreshadowed in last year's report came into effect on 31st March, 1929, and a whole-time School Medical Inspector was appointed to take the place of Dr. E. W. C. Thomas, the local Medical Officer of Health who had hitherto acted as part-time School Medical Inspector for the County Council.

The new Urban Districts of Benfleet and Rayleigh in the Rochford area, were formed as and from 1st October, 1930, and the Assistant County Medical Officer for the area, Dr. N. S. R. Lorraine, was appointed Medical Officer of Health for the new districts and commenced duty in January, 1930. Further reference will be made to this area in next year's report.



**Local Government Act, 1929—Section 58.**

During the year consideration was given to the preparation of a report under Section 58 of the Local Government Act, 1929, for the formulation of arrangements whereby "every Medical Officer of Health subsequently appointed for a district shall be restricted by the terms of his employment from engaging in private practice." Further consideration of the provisions of this Section has been adjourned pending the review of sanitary districts required by Section 46 of the Local Government Act, 1929, which is now engaging the attention of the appropriate Committee of the County Council.

**COMBINED TREATMENT CENTRES.**

A list of the Combined Treatment Centres under the County Council was given on pages 124 and 125 of the Annual Report for the year 1928.

The only additions during 1929 were as follows :—

| Centre.                    | Purpose for County Council.                                            | Date Opened. |
|----------------------------|------------------------------------------------------------------------|--------------|
| Brentwood—Montpelier House | School Clinic, Tuberculosis<br>Dispensary and Child Welfare<br>Centre. | April, 1929. |

The two new treatment centres which are being established at Dagenham and Becontree by the Dagenham Urban District Council will be opened in 1930 and arrangements have been made to utilise these premises for County purposes.

Further particulars will be given in next year's report.



TABLE XXVII.

[illegible]

These are the populations as estimated at 31st December, 1999, but the rates have been calculated on the following adjusted populations: -



**TABLE XXVIII.**  
**CAUSES OF DEATH—YEAR 1929**  
(Figures supplied by the Registrar-General).

[illegible]

\* Leprosy.



**TABLE XXIX.**  
**NOTIFICATIONS OF INFECTIOUS DISEASE AND ATTACK RATES, 1929.**

99

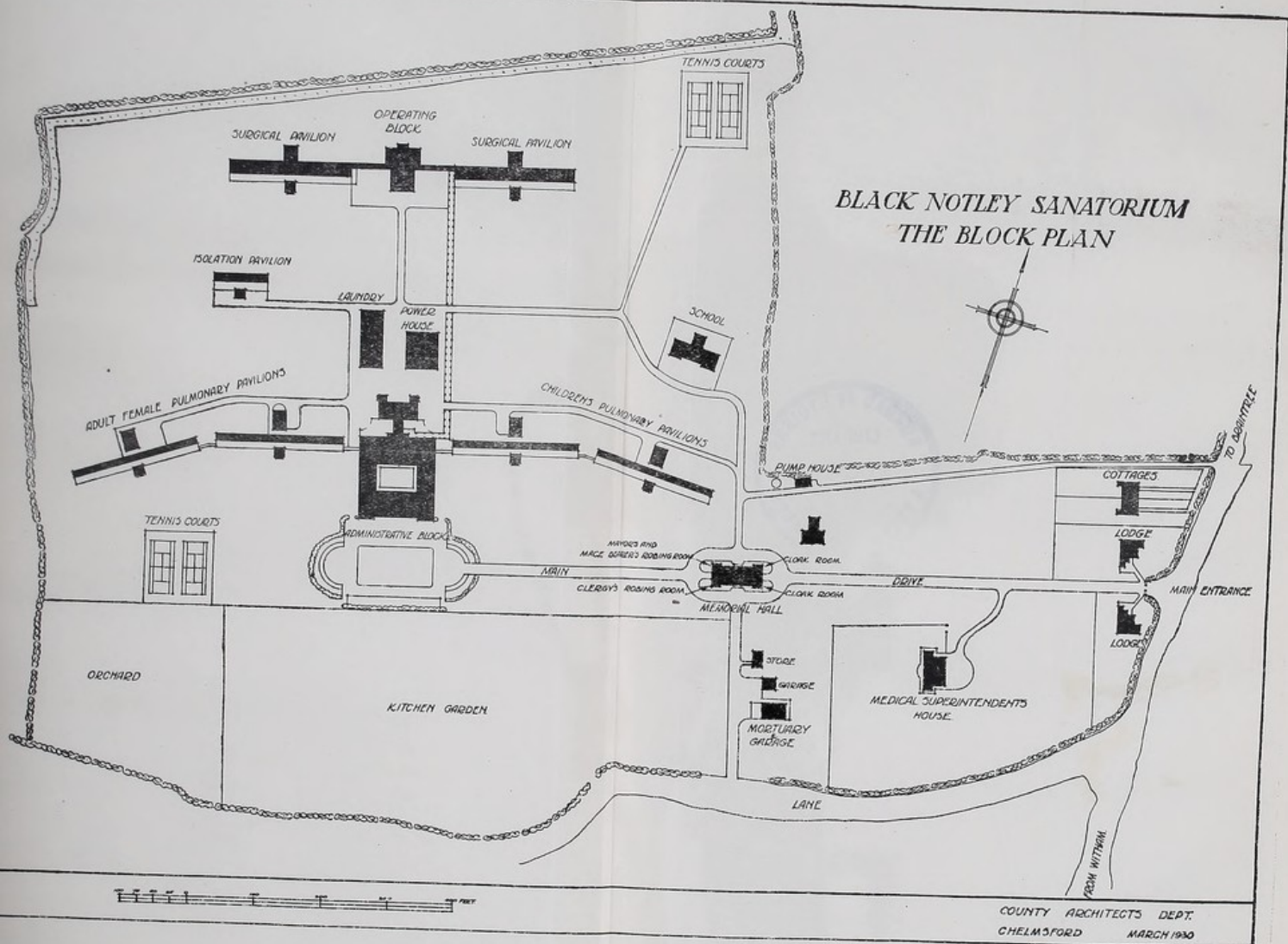
(Figures obtained from the Weekly Notification Returns.)

| SANITARY DISTRICTS. | Estimated<br>Population<br>1929. | SCARLET<br>FEVER. |               | DIPHTHERIA. |               | ENTERIC<br>FEVER. |               | PUERPERAL<br>FEVER. |               | PUERPERAL<br>PYREXIA. |               | ERYSIPELAS. |               | OPHTHALMIA<br>NEONATORUM. |               | TUBERCULOSIS,<br>RESPIRATORY. |               | OTHER<br>TUBERCULAR<br>DISEASES. |               | PNEUMONIA. |               | ENCEPHAL-<br>ITIS LE-<br>THARGICA. |               | ACUTE<br>POLIO-<br>MYELITIS. |               | SMALL-<br>POX. |               | VARIC-<br>ELLS. |  | TOTAL |  |
|---------------------|----------------------------------|-------------------|---------------|-------------|---------------|-------------------|---------------|---------------------|---------------|-----------------------|---------------|-------------|---------------|---------------------------|---------------|-------------------------------|---------------|----------------------------------|---------------|------------|---------------|------------------------------------|---------------|------------------------------|---------------|----------------|---------------|-----------------|--|-------|--|
|                     |                                  | No.               | Per<br>1,000. | No.         | Per<br>1,000. | No.               | Per<br>1,000. | No.                 | Per<br>1,000. | No.                   | Per<br>1,000. | No.         | Per<br>1,000. | No.                       | Per<br>1,000. | No.                           | Per<br>1,000. | No.                              | Per<br>1,000. | No.        | Per<br>1,000. | No.                                | Per<br>1,000. | No.                          | Per<br>1,000. | No.            | Per<br>1,000. |                 |  |       |  |
|                     |                                  |                   |               |             |               |                   |               |                     |               |                       |               |             |               |                           |               |                               |               |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  |       |  |
| URBAN.              |                                  |                   |               |             |               |                   |               |                     |               |                       |               |             |               |                           |               |                               |               |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  |       |  |
| BARKING             | 42160                            | 261               | 6.19          | 16          | 2.28          | 3                 | 0.07          |                     |               | 3                     | 0.07          | 30          | 0.71          | 13                        | 0.31          | 44                            | 1.04          | 17                               | 0.40          | 88         | 2.09          |                                    |               | 2                            |               | 10             | 2             |                 |  | 569   |  |
| BENFLEET            | 11900                            | 3                 | 1.01          | 11          | 3.69          |                   |               |                     |               |                       |               |             |               |                           |               | 3                             | 1.01          | 2                                | 0.67          |            |               | 1                                  |               |                              |               |                |               |                 |  | 20    |  |
| BRAINTREE           | 8568                             | 23                | 2.68          | 6           | 0.70          |                   |               |                     |               | 2                     | 0.23          | 2           | 0.23          |                           |               | 12                            | 1.40          | 6                                | 0.70          | 1          | 0.12          |                                    |               |                              |               |                |               |                 |  | 52    |  |
| BRENTWOOD           | 7578                             | 23                | 3.03          | 11          | 1.45          |                   |               |                     |               |                       |               | 7           | 0.92          |                           |               | 4                             | 0.53          | 3                                | 0.39          | 7          | 0.92          |                                    |               |                              |               |                |               |                 |  | 55    |  |
| BRIGHTLINGSEA       | 4356                             | 8                 | 1.84          |             |               |                   |               | 1                   | 0.23          | 1                     | 0.23          |             |               |                           |               | 5                             | 1.15          | 1                                | 0.23          | 14         | 3.21          | 1                                  |               |                              |               |                |               |                 |  | 31    |  |
| BUCKHURST HILL      | 5501                             | 3                 | 0.55          | 2           | 0.36          |                   |               |                     |               |                       |               | 2           | 0.36          |                           |               |                               |               |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  | 19    |  |
| BURNHAM-ON-CROUCH   | 3622                             | 3                 | 0.83          | 3           | 0.83          |                   |               |                     |               | 1                     | 0.27          | 4           | 1.10          | 1                         | 0.27          | 3                             | 0.83          | 1                                | 0.27          | 1          | 0.27          |                                    |               |                              |               |                |               |                 |  | 17    |  |
| CANVEY ISLAND       | 6386                             | 3                 | 0.47          | 2           | 0.31          | 1                 | 0.16          |                     |               |                       |               | 3           | 0.47          |                           |               | 13                            | 2.04          | 2                                | 0.31          | 19         | 2.98          |                                    |               |                              |               | 1              |               |                 |  | 44    |  |
| CHELMERSFORD E.     | 23939                            | 33                | 1.46          | 18          | 0.75          | 5                 | 0.21          | 4                   | 0.17          | 1                     | 0.04          | 3           | 0.12          | 1                         | 0.04          | 22                            | 0.92          | 7                                | 0.29          | 24         | 1.00          |                                    |               | 2                            |               |                |               |                 |  | 122   |  |
| CHINGFORD           | 16690                            | 59                | 3.67          | 7           | 0.43          |                   |               |                     |               | 3                     | 0.18          |             |               |                           |               | 11                            | 0.68          | 4                                | 0.25          | 10         | 0.62          |                                    |               |                              |               |                |               |                 |  | 100   |  |
| CLACTON-ON-SEA      | 15510                            | 35                | 2.26          | 15          | 0.97          |                   |               |                     |               |                       |               | 6           | 0.37          |                           |               | 11                            | 0.71          | 1                                | 0.06          | 5          | 0.32          |                                    |               |                              |               |                |               |                 |  | 73    |  |
| COLCHESTER B.       | 44890                            | 185               | 4.12          | 45          | 0.96          | 13                | 0.29          | 2                   | 0.04          | 7                     | 0.15          | 30          | 0.67          |                           |               | 56                            | 1.25          | 8                                | 0.18          | 110        | 2.45          | 3                                  |               |                              |               |                |               |                 |  | 24    |  |
| DAGENHAM            | 76970                            | 562               | 6.32          | 217         | 2.82          | 6                 | 0.08          | 8                   | 0.10          | 11                    | 0.14          | 21          | 0.27          | 25                        | 0.32          | 103                           | 1.34          | 35                               | 0.45          | 167        | 2.17          | 1                                  |               |                              |               | 3              | 11            |                 |  | 1110  |  |
| EPPING              | 5357                             | 12                | 2.25          | 17          | 3.19          | 3                 | 0.56          |                     |               |                       |               | 2           | 0.37          | 1                         | 0.19          | 6                             | 1.13          | 3                                | 0.56          | 20         | 3.75          | 1                                  |               |                              |               |                |               |                 |  | 65    |  |
| FRINTON-ON-SEA      | 2279                             |                   |               |             |               |                   |               |                     |               |                       |               |             |               |                           |               | 1                             | 0.44          |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  | 2     |  |
| GRAYS               | 15480                            | 35                | 1.89          | 88          | 4.76          |                   |               | 1                   | 0.05          | 6                     | 0.32          | 12          | 0.65          |                           |               | 16                            | 0.86          | 6                                | 0.32          | 34         | 1.84          |                                    |               | 1                            |               | 4              |               |                 |  | 263   |  |
| HALESTAD            | 2857                             | 8                 | 1.36          | 1           | 0.17          | 1                 | 0.17          |                     |               |                       |               | 2           | 0.34          |                           |               | 11                            | 1.87          | 1                                | 0.17          | 34         | 5.78          |                                    |               |                              |               |                |               |                 |  | 38    |  |
| HARWICH B.          | 11890                            | 56                | 4.71          | 29          | 2.44          |                   |               |                     |               |                       |               | 4           | 0.34          |                           |               | 8                             | 0.67          | 1                                | 0.08          | 5          | 0.42          |                                    |               |                              |               |                |               |                 |  | 103   |  |
| HORNCHURCH          | 17480                            | 49                | 2.80          | 51          | 2.92          |                   |               | 1                   | 0.06          | 2                     | 0.11          | 7           | 0.49          | 2                         | 0.11          | 13                            | 0.74          | 6                                | 0.34          | 6          | 0.34          |                                    |               |                              |               |                |               |                 |  | 139   |  |
| ILFORD B.           | 116200                           | 466               | 4.01          | 298         | 2.56          | 12                | 0.10          | 8                   | 0.07          | 8                     | 0.07          | 49          | 0.42          | 6                         | 0.05          | 95                            | 0.82          | 44                               | 0.88          | 148        | 1.27          | 1                                  |               |                              |               | 6              | 5             |                 |  | 1146  |  |
| LEYTON B.           | 12850                            | 483               | 3.78          | 246         | 1.92          | 3                 | 0.02          | 4                   | 0.03          | 14                    | 0.11          | 53          | 0.41          | 8                         | 0.06          | 116                           | 0.90          | 29                               | 0.23          | 122        | 0.85          | 1                                  | 1             |                              |               | 9              | 3             |                 |  | 1694  |  |
| LOUGHTON            | 7157                             | 3                 | 0.42          | 1           | 0.14          |                   |               |                     |               |                       |               |             |               |                           |               | 2                             | 0.28          | 2                                | 0.28          | 8          | 1.12          |                                    |               | 1                            |               |                |               |                 |  | 17    |  |
| MALDON B.           | 5612                             | 7                 | 1.06          | 4           | 0.60          | 1                 | 0.15          |                     |               | 2                     | 0.30          | 6           | 0.91          |                           |               | 5                             | 0.76          | 8                                | 1.21          | 6          | 0.91          | 2                                  |               |                              |               |                |               | 1               |  | 42    |  |
| *PURFLEET           | 9141                             | 23                | 3.36          | 45          | 6.57          |                   |               |                     |               |                       |               | 1           | 0.15          |                           |               |                               |               |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  | 82    |  |
| *RATLEIGH           | 5400                             | 2                 | 1.57          | 1           | 0.68          |                   |               |                     |               |                       |               |             |               |                           |               |                               |               |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  | 3     |  |
| ROMFORD             | 28710                            | 14                | 1.88          | 146         | 5.69          | 4                 | 0.14          | 3                   | 0.10          | 4                     | 0.14          | 6           | 0.21          |                           |               | 30                            | 1.04          | 13                               | 0.45          | 4          | 0.14          |                                    |               | 1                            | 1             | 1              |               |                 |  | 267   |  |
| SAFFRON WALDEN B.   | 5576                             | 14                | 2.48          | 5           | 0.88          |                   |               |                     |               |                       |               | 6           | 1.06          |                           |               | 4                             | 0.71          | 1                                | 0.18          |            |               |                                    |               |                              |               |                |               |                 |  | 30    |  |
| SHOEBURYNES         | 5683                             | 35                | 6.2           | 10          | 1.76          |                   |               |                     |               |                       |               | 1           | 0.76          |                           |               | 3                             | 0.53          | 2                                | 0.35          | 18         | 3.11          | 1                                  | 1             |                              |               |                |               |                 |  | 76    |  |
| TILBURY             | 17090                            | 45                | 2.63          | 118         | 6.90          |                   |               |                     |               | 2                     | 0.12          | 4           | 0.23          | 1                         | 0.06          | 13                            | 0.76          | 4                                | 0.23          | 25         | 1.46          |                                    |               | 1                            | 12            | 2              |               |                 |  | 227   |  |
| WALTHAM HOLY CROSS  | 6911                             | 13                | 1.88          | 4           | 0.58          |                   |               | 1                   | 0.14          | 2                     | 0.29          | 12          | 1.74          |                           |               | 4                             | 0.59          | 2                                | 0.29          | 22         | 3.18          |                                    |               |                              |               |                |               | 1               |  | 61    |  |
| WALTHAMSTOW         | 124500                           | 687               | 5.51          | 335         | 2.68          | 2                 | 0.02          | 5                   | 0.04          | 6                     | 0.05          | 50          | 0.40          | 7                         | 0.06          | 138                           | 1.11          | 51                               | 0.41          | 216        | 1.73          | 2                                  |               |                              | 10            | 2              |               |                 |  | 1511  |  |
| WALTON-ON-THE-NAZE  | 3113                             | 1                 | 0.32          |             |               |                   |               |                     |               |                       |               | 8           | 0.45          |                           |               |                               |               |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  | 150   |  |
| WANSTEAD            | 17950                            | 17                | 3.18          | 13          | 1.28          |                   |               |                     |               |                       |               |             |               |                           |               | 17                            | 0.95          | 10                               | 0.56          | 32         | 1.78          | 1                                  |               |                              | 2             |                |               |                 |  | 41    |  |
| WEST MERSEA         | 2237                             | 5                 | 2.24          |             |               |                   |               | 1                   | 0.15          |                       |               |             |               |                           |               | 1                             | 0.45          |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  | 7     |  |
| WITTON              | 4548                             | 14                | 3.22          | 13          | 2.99          | 1                 | 0.23          |                     |               | 2                     | 0.46          | 2           | 0.46          |                           |               | 6                             | 1.38          | 1                                | 0.23          | 2          | 0.46          |                                    |               |                              |               |                |               |                 |  | 13    |  |
| WIVENHOE            | 2818                             | 6                 | 2.60          | 1           | 0.4           |                   |               |                     |               |                       |               | 2           | 0.87          |                           |               | 3                             | 1.29          | 1                                | 0.43          |            |               |                                    |               |                              |               |                |               |                 |  | 13    |  |
| WOODFORD            | 22490                            | 43                | 1.91          | 48          | 2.13          | 1                 | 0.04          |                     |               | 1                     | 0.04          | 7           | 0.31          |                           |               | 21                            | 0.93          | 4                                | 0.18          | 47         | 2.09          | 1                                  | 1             |                              |               |                |               |                 |  | 174   |  |
|                     | 827750                           | 3263              | 3.94          | 1915        | 2.21          | 56                | 0.07          | 42                  | 0.05          | 78                    | 0.09          | 352         | 0.42          | 64                        | 0.08          | 806                           | 0.97          | 279                              | 0.74          | 1234       | 1.48          | 16                                 |               | 10                           |               | 58             | 54            |                 |  | 8217  |  |
| RURAL.              |                                  |                   |               |             |               |                   |               |                     |               |                       |               |             |               |                           |               |                               |               |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  |       |  |
| BELCHAM             | 4090                             | 2                 | 0.49          | 5           | 1.22          |                   |               |                     |               |                       |               | 1           | 0.24          |                           |               | 6                             | 1.47          | 2                                | 0.49          | 2          | 0.49          |                                    |               |                              |               |                |               |                 |  | 18    |  |
| BILLERICAY          | 39590                            | 117               | 2.95          | 46          | 1.28          | 1                 | 0.03          |                     |               | 7                     | 0.19          | 11          | 0.30          | 2                         | 0.05          | 36                            | 1.60          | 14                               | 0.89          | 32         | 0.89          | 1                                  |               |                              |               | 1              | 5             |                 |  | 273   |  |
| BRAINTREE           | 20750                            | 50                | 2.41          | 11          | 0.53          | 1                 | 0.05          | 1                   | 0.05          | 3                     | 0.14          | 9           | 0.43          |                           |               | 16                            | 0.77          | 8                                | 0.39          | 16         | 0.77          |                                    |               |                              |               |                |               |                 |  | 115   |  |
| BRENTWOOD           | 2320                             | 6                 | 1.59          | 2           | 0.86          |                   |               |                     |               |                       |               | 3           | 1.29          |                           |               | 4                             | 1.72          | 1                                | 0.43          | 2          | 0.86          |                                    |               |                              |               |                |               |                 |  | 18    |  |
| CHELMFORD           | 28600                            | 54                | 1.89          | 10          | 0.35          | 1                 | 0.03          | 2                   | 0.07          | 4                     | 0.14          | 3           | 0.10          |                           |               | 18                            | 0.63          | 13                               | 0.45          | 11         | 0.38          |                                    |               | 2                            |               |                |               |                 |  | 119   |  |
| DUNMOW              | 15510                            | 36                | 2.32          | 1           | 0.06          |                   |               |                     |               | 2                     | 0.13          | 8           | 0.51          | 2                         | 0.13          | 8                             | 0.51          | 5                                | 0.32          | 21         | 1.35          |                                    |               | 1                            |               |                |               |                 |  | 84    |  |
| EPPIING             | 16750                            | 18                | 1.07          | 27          | 1.61          | 2                 | 0.12          | 1                   | 0.06          | 1                     | 0.06          | 4           | 0.24          |                           |               | 12                            | 0.72          | 3                                | 0.18          | 22         | 1.31          |                                    |               |                              |               |                |               |                 |  | 90    |  |
| HALESTAD            | 5380                             | 21                | 2.10          | 1           | 0.10          | 2                 | 0.20          |                     |               |                       |               | 2           | 0.20          |                           |               | 14                            | 1.40          | 1                                | 0.10          | 24         | 2.40          |                                    |               |                              |               |                |               |                 |  | 96    |  |
| LEXDEN AND WINSTREE | 18580                            | 35                | 1.88          | 10          | 0.54          | 1                 | 0.05          | 2                   | 0.11          |                       |               | 6           | 0.32          | 4                         | 0.21          | 18                            | 0.97          | 5                                | 0.27          | 4          | 0.21          |                                    |               |                              |               |                |               |                 |  | 71    |  |
| MALDON              | 16750                            | 19                | 1.13          | 13          | 0.78          | 2                 | 0.12          |                     |               | 2                     | 0.12          | 2           | 0.12          |                           |               | 14                            | 0.84          | 2                                | 0.12          | 12         | 0.72          | 1                                  |               |                              | 4             |                |               |                 |  | 95    |  |
| ONGAR               | 10460                            | 16                | 1.53          | 20          | 1.91          |                   |               | 1                   | 0.69          | 4                     | 0.38          |             |               |                           |               | 5                             | 0.48          | 3                                | 0.29          | 6          | 0.57          |                                    |               |                              |               |                |               |                 |  | 75    |  |
| ORSAY               | 18500                            | 57                | 2.81          | 50          | 2.46          |                   |               | 3                   | 0.15          | 3                     | 0.15          | 1           | 0.05          | 14                        | 0.69          | 6                             | 0.29          | 23                               | 1.13          |            |               |                                    |               |                              |               |                |               |                 |  | 164   |  |
| ROCHFORD            | 14830                            | 94                | 3.34          | 14          | 0.49          |                   |               | 2                   | 0.37          | 1                     | 0.03          | 5           | 0.18          | 1                         | 0.03          | 13                            | 0.46          | 7                                | 0.55          | 22         | 0.78          |                                    |               |                              |               |                |               |                 |  | 96    |  |
| ROMFORD             | 14220                            | 21                | 1.59          | 41          | 2.88          | 1                 | 0.07          | 3                   | 0.21          |                       |               |             |               |                           |               | 14                            | 0.98          | 6                                | 0.22          | 2          | 0.14          |                                    |               |                              |               |                |               |                 |  | 32    |  |
| SAFFRON WALDEN      | 9650                             | 12                | 1.24          | 5           | 0.52          |                   |               |                     |               |                       |               | 4           | 0.41          |                           |               | 4                             | 0.41          | 4                                | 0.41          | 5          | 0.31          |                                    |               |                              |               |                |               |                 |  | 47    |  |
| STANSTEAD           | 6890                             | 28                | 4.06          | 1           | 1.14          | 1                 | 0.14          |                     |               | 2                     | 0.29          | 3           | 0.43          | 1                         | 0.14          | 2                             | 0.29          | 4                                | 0.38          | 5          | 0.72          |                                    |               |                              |               |                |               |                 |  | 162   |  |
| TENDRING            | 23720                            | 93                | 3.92          | 23          | 0.97          | 1                 | 0.04          | 1                   | 0.04          | 6                     | 0.25          | 6           | 0.25          |                           |               | 16                            | 0.67          | 5                                | 0.31          | 10         | 0.42          |                                    |               |                              |               |                |               |                 |  |       |  |
|                     | 286500                           | 682               | 2.41          | 280         | 0.99          | 13                | 0.05          | 12                  | 0.04          | 33                    | 0.12          |             |               |                           |               |                               |               |                                  |               |            |               |                                    |               |                              |               |                |               |                 |  |       |  |



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