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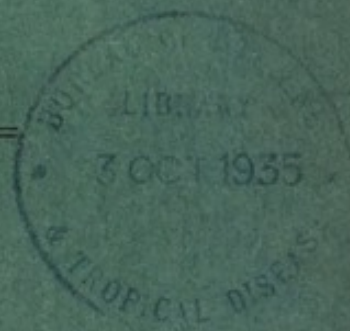
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ADMINISTRATIVE COUNTY OF ESSEX.



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**REPORT**

OF THE

**MEDICAL OFFICER OF HEALTH**

**FOR THE YEAR 1934.**

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

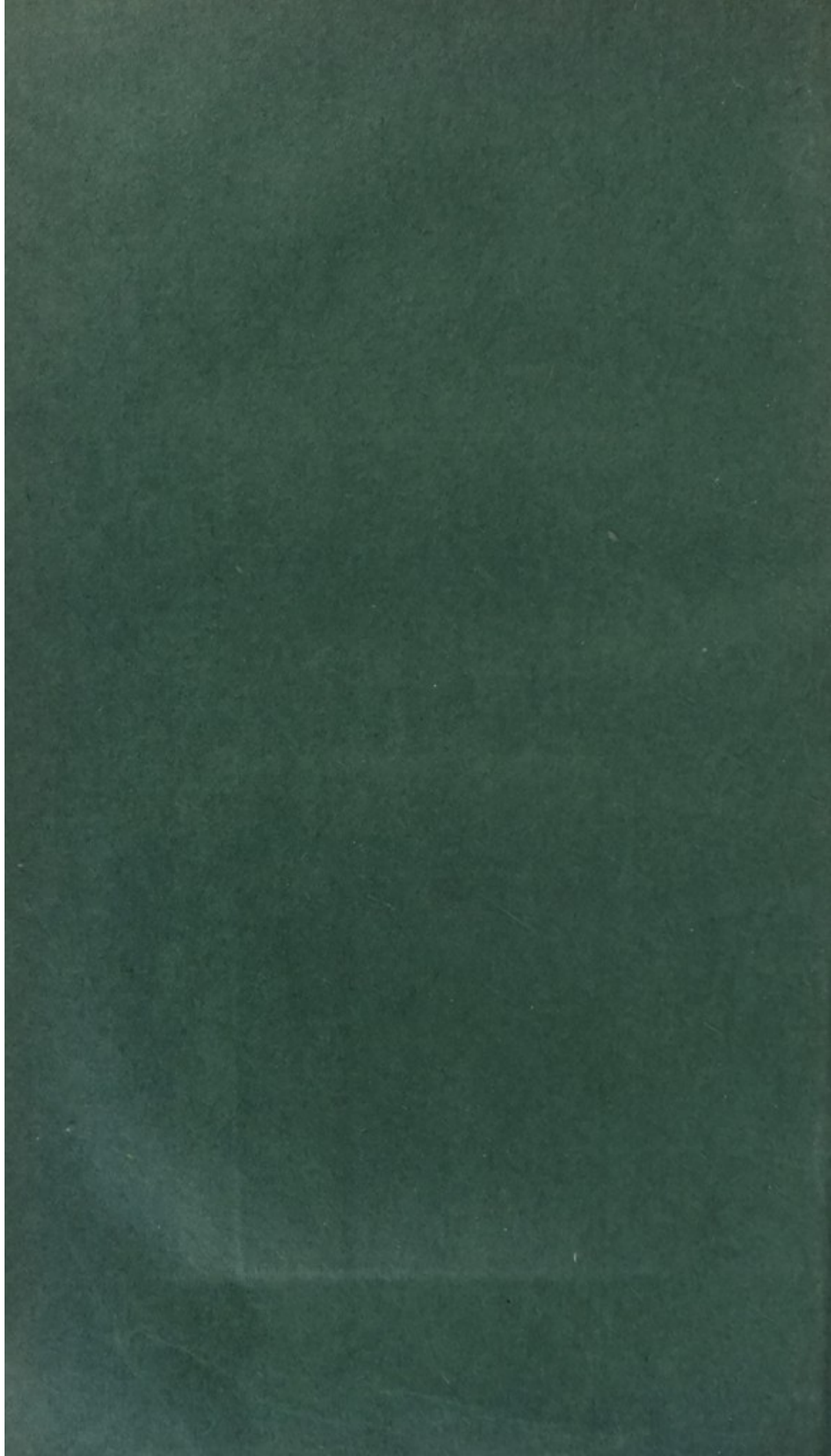
**COUNTY MEDICAL OFFICER OF HEALTH.**

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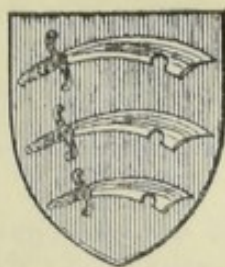
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ADMINISTRATIVE COUNTY OF ESSEX.

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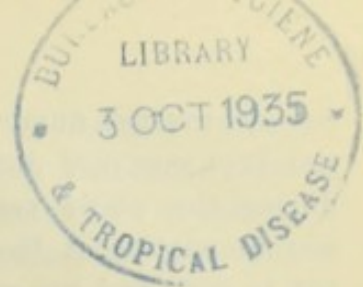
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## PREFACE.



*the Chairman and Members of the Essex County Council.*

I have the honour to submit to you my Sixteenth Annual Report for the Administrative County of Essex for the year 1934. This is the 45th Annual Report which has been issued.

The birth-rate increased slightly from 14.1 in 1933 to 14.4 in 1934, the total number of live births being 18,013 and 18,688 respectively. For England and Wales the birth-rate was 14.8 for the year 1934. The lowest rate (7.5) recorded in the County was in the Brightlingsea Urban District, whilst the highest (19.6) was in the Dagenham Urban District. In two Municipal Boroughs, three Urban Districts and three Rural Districts the birth-rate was lower than the death-rate.

There was also a slight increase in the death-rate from 10.0 in 1933 to 10.1 in 1934, the rate for England and Wales being 11.8. The number of deaths from heart disease (3,061) and cancer (1,882) is the highest ever recorded in this County.

A further decrease was recorded in the infant mortality rate, *i.e.*, deaths of infants under one year of age per 1,000 births, from 49 in 1933 to 48 in 1934. These figures compare favourably with the comparative rates for England and Wales, namely, 64 and 59 respectively. The highest infant mortality rate (92) was in the Weymouth Urban District and the lowest (17) in the Frinton and Walton Urban District. In the Saffron Walden Borough and the Burnham-on-Crouch Urban District there was not a single death of an infant under one year of age during the year.

Scarlet Fever was again much more prevalent, the number of cases increasing from 4,827 in 1933 to 5,660 in 1934, the notification rates being 3.8 and 4.37 respectively. The disease was again of a mild type. The highest notification rate (5.05) was in the Witham Urban District, and the lowest in the Wivenhoe Urban District, where not a single case was notified.

There was a marked increase in the number of cases of Diphtheria, 2,717 being notified (notification rate 2.10) as compared to 1,343 notified (notification rate 1.1) in 1933. The increase in the Rural Districts was small, namely, 186 in 1933 to 198 in 1934.

The number of notifications of Smallpox (*Variola Minor*) fell from 13 in 1933 to 1 in 1934. One case occurred in the Walthamstow Borough and the other in the Chelmsford Rural District.

With regard to the primary notifications of all forms of tuberculosis the number increased from 1,715 in 1933 to 1,599 in 1934, the attack rates being 1.34 and 1.23 respectively. The mortality rate continued to decline, falling from 0.64 to 0.59. Work at the tuberculosis dispensaries was extended during the year, particularly in connection with X-ray examinations, which increased from 1,617 to 2,256, and which now form an invaluable part in the examination of tuberculosis patients. More visits have been paid to the homes of patients by the Tuberculosis Officers and Nurses.



An average number of 625 beds (550 last year) for the treatment of Tuberculosis was kept occupied during the year, the demand for beds being particularly heavy during the whole year. The County Council has decided to provide additional accommodation at Black Notley Sanatorium by increasing the number of beds from 192 to 300, and has purchased Broomfield Court, near Chelmsford, where it is proposed to erect a Sanatorium to provide 300 beds for male patients. A detailed account of this increased work undertaken at the County Sanatoria is given on pages 69 to 76.

Further developments in the Maternity and Child Welfare Service are outlined in Part III of this report. They include an increase in the consultant services and the number of Ante-Natal Centres, Child Welfare Centres and Health Visitors, as well as the provision, for the first time, of convalescent treatment for expectant and nursing mothers.

For some time it has been felt there was a real need for lessons in elementary cookery and housewifery at the various Child Welfare Centres. These were given at some of the Centres during the year and were so keenly appreciated that it has been decided to extend them to all the Centres in the County Council's area.

Increasing advantage was taken of the facilities provided for dental treatment. The number of mothers receiving treatment being 172 in 1933 and 369 in 1934.

A conference of voluntary workers, to whom the County Council's thanks are due for the splendid work carried out, was again held during the year when an excellent discussion took place on a variety of subjects connected with Maternity and Child Welfare.

Maternal mortality has again received consideration, particularly in reference to Circular 1433 issued by the Ministry of Health on the 10th October, 1934. The Committee has already extended the service and facilities for the benefit of expectant and nursing mothers.

Close co-operation with the Essex County Nursing Association has been well maintained during the year, chiefly through the County Superintendent who is also Chief Health Nurse. There are now 185 District Nurses serving 342 parishes, this is an increase of 16 parishes, reducing the number of parishes without a service from 51 to 35. The Essex County Nursing Association is to be congratulated on the good work carried out during the year.

Dr. John F. Beale has again kindly given on pages 14 and 98 an account of the work undertaken by him as Bacteriologist for Essex. The total of the samples and specimens examined was 25,842, the number for 1933 being 17,281.

Routine inspection of dairy herds three times yearly was commenced by the Chief Veterinary Officer, Mr. F. W. Medlock, M.R.C.V.S., on the 1st October, 1934. During the three months dated 31st December, 1934, 1,754 dairy herds, including 36,326 cows, were inspected. Details of the results obtained are given on page 41. 771 samples of milk were obtained by biological examinations, 95, or 12.3 per cent., being found to contain tubercle bacilli as compared to 11 per cent. for 1933.



Special mention must be made of the scheme to supply milk in schools as extended by the Milk Marketing Board under the power granted by the Milk Act, 1934. Owing to the ready and willing response of the head teachers this Scheme is now in operation on a voluntary basis in 451 schools or departments and it is estimated that 40,169 children are each receiving one-third pint of milk per day at the reduced price of  $\frac{1}{2}$ d. Before any milk purveyor can supply milk to schools under this scheme he must obtain a certificate from me approving of the source and quality of the milk supplied.

As required by the Housing Act, 1930, the County Public Health and Housing Committee has continued to have constant regard to housing conditions of persons of the working classes in the Rural Districts. To this end, returns were again obtained from the rural districts, and in some instances it was necessary to arrange for further investigations by officers of the County Council. There was a slight decrease in the number of new houses erected and also in the number of houses inspected. Overcrowding has always been a difficult problem, and attempts to deal with it satisfactorily have been weakened by the absence of a prescribed standard. The passing of the Housing Act, 1935, at the time of writing, lays down such a standard, and makes better provision for the abatement and prevention of overcrowding. The provision of houses which can be let at rents within the means of the lowest paid workers calls for definite action, and it is hoped that the County Council's offer of practical assistance to rural districts will have the desired result.

Changes in long established local government areas and boundaries came into force with the approval of the Ministry of Health during the year under Section 46 of the Local Government Act, 1929. As a result, the County Council was able to complete schemes which they were required to submit to the Ministry under Section 58 of that Act in respect to whole-time Medical Officers of Health, and under Section 63 of that Act in respect to accommodation for the isolation and treatment of infectious diseases, including Smallpox.

Circumstances necessitated the amendment of the County Council's Scheme under Section 57 of the Local Government Act, 1929, for making contributions to District Councils towards the expenditure incurred in the provision or maintenance of sewers or sewage disposal works, or of a water supply, or in the improving of an existing supply of water. This Scheme is set out in detail on page 25.

Consideration was given during the year to the standard impurity figure of 10.0 for sewage effluents. The County Council decided to place on record, and to notify all persons concerned, that this impurity figure of 10.0 is intended only for sewage and trade effluents, the volume of which in each case is not more than one-tenth of the bulk of the stream into which they discharge.

Important investigations were carried out during the year regarding sewage disposal in the Lee, Roding and Beam Valley Watersheds. During the consideration of this matter, the Ministry of Health published their "Report on Greater London Drainage" dealing with an area which includes and encircles the London County, embracing land within a radius of 25 miles from Charing Cross, including the three Valley Watersheds already referred to in Essex. Although there appears to be no immediate prospect of the adoption of these large schemes of centralisation, the recommendations indicate how these difficult problems can be solved when financial and other circumstances permit.



Water supplies in rural areas have in the past been largely from shallow wells, springs and ponds, many of which have failed to recover from the effects of the recent dry seasons. Acute shortage of water occurred during the year in many rural parts of the County; the rainfall was again still below the average. Mr. J. Mackworth Wood, M.Inst.C.E., was again called in to carry out a survey and to report upon the existing water supplies in each village, the needs of each village, the existing sources of public supplies, and the new sources of public supplies. His report, dated 20th September, 1934, has been circulated to all the Local Sanitary Authorities concerned, and it is pleasing to note that, with three exceptions, every rural district in the County has, or will have, comprehensive schemes of water supplies in operation. This has been made possible by the financial assistance forthcoming from the Ministry of Health under the Rural Water Supplies Act, 1934, and from the County Council, who have in each case undertaken to contribute a grant equivalent to that promised by the Ministry of Health.

Part IV of this Report deals with the health work carried out for the Public Assistance Committee. The year has been notable in several respects for the completion of preliminary survey work on four important aspects, namely, a comprehensive scheme for the accommodation of the sick in the County, the recruitment and training of nurses, the provision of a "Free Choice of Doctor Scheme" for the Domiciliary Medical Service, and the securing of efficient and adequate ambulance facilities.

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

W. A. BULLOUGH,

*County Medical Officer.*

PUBLIC HEALTH DEPARTMENT,  
COUNTY HALL,  
CHELMSFORD.

*19th August, 1935.*



## STAFF.

A detailed list of the Medical and Health Visiting Staff was set out on pages 14—17 of the Report for the year 1930, and subsequent changes in the Reports for 1931, 1932 and 1933 were given.

The following alterations and additions were made during 1934 :—

### (1) Medical Staff.

Dr. W. L. Yell, District Tuberculosis Officer, Ilford Area, commenced duty on 1st May, 1934, as Senior Assistant County Medical Officer.

Mr. G. J. Ahern, M.R.C.S., L.R.C.P., D.O.M.S., commenced duty on 3rd September, 1934, as County Ophthalmologist.

On 1st October, 1934, Dr. C. E. E. Herington, M.B., B.S., D.P.H., replaced Dr. E. W. C. Thomas as Medical Officer of Health, Dagenham, and took over the County duties previously performed by Dr. Thomas.

In October, 1934, Dr. E. M. Wright, B.A., B.M., B.Ch., D.P.H., replaced Dr. S. Knight as Assistant County Medical Officer in the Dagenham area.

The following additional appointments of Assistant County Medical Officers were made :—

Dr. Kathleen Bodkin, M.R.C.S., L.R.C.P., D.P.H., Romford Area, September, 1934.

Dr. J. G. Currid, M.A., M.B., Ch.B., D.P.H., Ilford Area, May, 1934.

Dr. R. H. Denham, M.D., Ch.B., D.P.H., Dagenham Area, September, 1934.

Dr. Rachel Elliott, M.D., B.Ch., B.A.O., D.P.H., Braintree Area, September, 1934.

### (2) 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.  |
|----------------------|----------------------------------------------------|----------------------|----------------------|---------------------|
| E. A. Knox           | .. New H.V. Cert., Gen. Training and Cert. Midwife | 10-9-34              | .. Hornchurch        | .. New appointment. |
| D. Knowlton          | .. New H.V. Cert., Gen. Training and Cert. Midwife | 10-9-34              | .. Epping            | .. New appointment. |
| L. M. Morgan         | .. New H.V. Cert., Gen. Training and Cert. Midwife | 30-4-34              | .. Chelmsford        | .. Vacancy.         |
| K. M. A. Pethybridge | New H.V. Cert., Gen. Training and Cert. Midwife    | 10-9-34              | .. Brentwood         | .. New appointment. |

| Name.                                    | Qualifications.                                    | Date commenced duty. | District and duties. | Reason for charge.                                                                                             |
|------------------------------------------|----------------------------------------------------|----------------------|----------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Health Visitors—<i>continued.</i></b> |                                                    |                      |                      |                                                                                                                |
| G. A. Haryott                            | .. New H.V. Cert., Gen. Training and Cert. Midwife | 1-10-34              | .. Chelmsford        | .. New appointment.                                                                                            |
| E. J. Morgan<br>(School Nurse only)      | .. Gen. Training and Cert. Midwife                 | 11-9-34              | .. Romford           | .. New appointment.                                                                                            |
| G. L. Jefferson<br>(School Nurse only)   | .. Gen. Training                                   | .. 11-9-34           | .. Dagenham          | .. New appointment.                                                                                            |
| E. M. Baker                              | .. New H.V. Cert., Gen. Training and Cert. Midwife | 1-4-34               | .. Tilbury           | .. Vacancy.                                                                                                    |
| R. S. Bartter                            | .. Cert. Mid. and R.S.I.                           | 1-10-34              | .. Buckhurst Hill    | County Council took over Child Welfare work in these districts on 1-10-34 and consequently these appointments. |
| A. C. Murray                             | .. Gen. Training and Cert. Midwife                 | 1-10-34              | .. Loughton          |                                                                                                                |

### (3) Orthopaedic Masseuses.

|           |                        |         |              |                     |
|-----------|------------------------|---------|--------------|---------------------|
| M. Haydon | .. C.S.M.M.G. and M.E. | 10-9-34 | .. Chingford | .. New appointment. |
|-----------|------------------------|---------|--------------|---------------------|

### (4) Assistant County Health Inspector.

|               |                                                     |        |                  |                     |
|---------------|-----------------------------------------------------|--------|------------------|---------------------|
| R. H. Wigmore | .. A.R. San.I., Cert. Insp. of Meat and other Foods | 9-4-34 | .. Central Staff | .. New appointment. |
|---------------|-----------------------------------------------------|--------|------------------|---------------------|



## PART I.

### ACREAGE AND POPULATION.

The area of the Administrative County at the Census 1931 was 962,696. In October, 1933, the Urban District of Shoeburyness, with parts of certain other parishes, were transferred to Southend County Borough, thus reducing the area of the Administrative County to 961,665 acres.

Particulars of the Registrar-General's estimated population for the year 1934, compared with the Census of 1931, are given in the following table, together with certain other information in regard to the number of persons per acre and the rateable value of the County :—

|                        | Area in Acres. |              | POPULATION. |           | No. of Persons per acre. (Calculated on 1931 Census). | No. of Acres per person. (Census 1931). | No. of inhabited houses (Census 1931). | No. of families or separate Occupiers (Census 1931). | Registrar-General's Estimate, Normal Population, 1934. |             | Rateable value 1st April, 1934. |
|------------------------|----------------|--------------|-------------|-----------|-------------------------------------------------------|-----------------------------------------|----------------------------------------|------------------------------------------------------|--------------------------------------------------------|-------------|---------------------------------|
|                        |                |              | Census      |           |                                                       |                                         |                                        |                                                      | Districts.                                             | Population. |                                 |
|                        | Census 1921.   | Census 1931. | 1921.       | 1931.     |                                                       |                                         |                                        |                                                      |                                                        |             |                                 |
| Municipal Boroughs (9) | 45,754         | 45,702       | 468,214     | 543,389   | 11.9                                                  | 0.08                                    | 119,532                                | 140,520                                              | Municipal Boroughs (9)                                 | 584,010     | £8,330,507                      |
| Urban Districts (28)   | 97,748         | 97,948       | 219,533     | 375,242   | 3.8                                                   | 0.26                                    | 87,575                                 | 92,773                                               | Urban Districts (25)                                   | 497,642     |                                 |
| Rural Districts (17)   | 820,941        | 819,046      | 232,394     | 280,041   | 0.3                                                   | 2.92                                    | 73,384                                 | 74,595                                               | Rural Districts (12)                                   | 214,298     |                                 |
|                        | 964,443        | 962,696      | 920,141     | 1,198,672 | 1.2                                                   | 0.80                                    | 280,491                                | 307,888                                              |                                                        | 1,295,950   |                                 |

The product of a 1d. rate is estimated at £33,300.

During the year all the re-arrangements of Sanitary Districts, with one exception, were approved by the Ministry of Health and came into operation on 1st April, 1934. Detailed reference to these alterations is made under the heading "Local Government Act, 1929" (see page 20).

### SOCIAL CONDITIONS.

Essex, with its estimated population of 1,295,950, is now the fifth largest Administrative County in England and Wales. The southern half is largely residential and industrial, the northern half being mainly agricultural.

The chief industries are engineering, cement and brickmaking, breweries, asbestos, boot and shoemaking, and manufacture of artificial silk and motor cars.

Compared with other parts of the country, Essex has not been seriously affected by unemployment in 1934.

There is no evidence, statistical or otherwise, that unemployment has exercised any significant influence over the health or physique of children or adults.



### VITAL STATISTICS.

The chief vital statistics of the Administrative County compared with others for England and Wales for 1934 are given in the table below :—

|                                               | Essex.     |       | England and Wales. |       |
|-----------------------------------------------|------------|-------|--------------------|-------|
|                                               | 1930-1934. | 1934. | 1930-1934.         | 1934. |
| Birth-rate per 1,000 population ... ..        | 15·4       | 14·4  | 15·3               | 14·8  |
| Death-rate „ „ „ „ „ „ ..                     | 10·1       | 10·1  | 11·9               | 11·2  |
| Zymotic death-rate per 1,000 population ...   | 0·30       | 0·33  | Not available.     |       |
| Infant mortality rate per 1,000 births ... .. | 49         | 48    | 63                 | 59    |

### NOTIFICATION OF INFECTIOUS DISEASES.

A summary of the notifications of Infectious Diseases in the various Sanitary Districts during 1934 is set out in Table XXIV on page 106. It will be observed that 13,623 persons were notified as suffering from Infectious Disease, the attack rate per 1,000 population being 10·5, as against 8·2 for 1933. This increase is chiefly attributable to the following diseases :—

**SCARLET FEVER.** There was a further increase in the prevalence of this disease from 4,827 in 1933 to 5,660 during 1934. Correspondingly the number of deaths increased from 25 in 1933 to 32 in 1934.

**DIPHTHERIA.** The notifications of Diphtheria (2,717) are more than doubled for 1933 (1,343). The disease caused 165 deaths, compared with only 56 in 1933. Several local authorities have established Diphtheria Immunization Clinics in their districts, and the County Council has been able to help by allowing the use of schools and Combined Treatment Centres when not required for County purposes. Further educational propaganda among parents is necessary to convince them of the advisability of having their children Schick tested, followed by immunization when necessary.

**ERYSIPELAS.** During 1934, 565 persons were notified as suffering from this disease, compared with 442 in 1933. The increase was evenly distributed over the Urban and Rural Districts of the County.

**SMALLPOX.** Only two cases were notified in 1934, one from the Walthamstow B. and one from the Halstead R.D. Both patients were admitted to hospital and recovered, the disease being of a mild character.

### VACCINATION.

During the year ended 31st December, 1933 (the latest period for which complete information is available) the Vaccination Officers returns summarised in Table I show that 16,269 births were registered. Of these, 5,502 were successfully vaccinated, and in 8,269 instances a declaration of conscientious objection was made. Of the remaining 2,498 births, 615 removed to places unknown, 395 removed to districts of



TABLE I.

| Guardians Committee Areas. | No. of Births in "Birth List Sheets" registered 1st Jan. to 31st Dec., 1933. | No. of these Births entered by 31.1.35 in Cols. I, II, IV and V of the "Vaccination Register" (Birth List Sheets), viz. :— |                               |                |                                         | No. of Births which on 31.1.35 remained unentered in the "Vaccination Register" on account of :— |                                      |                                                                            |                                                   | No. of these Births remaining 31.1.35 neither entered in the "Vaccination Register" nor temporarily accounted for in "Report Book." | No. of Certificates of successful Primary Vaccination of Children under 14 received during 1934. | No. of Statutory Declarations of Conscientious objection received by V. O. during 1934. |
|----------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------|-----------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|                            |                                                                              | Col. I. Successfully vaccinated.                                                                                           | Col. II.                      |                | Col. IV. No. of Statutory Declarations. | Col. V. Died unvaccinated.                                                                       | Postponement by medical certificate. | Removal to Districts the Vaccination Officer of which have been appraised. | Removal to places to unknown and cases not found. |                                                                                                                                     |                                                                                                  |                                                                                         |
|                            |                                                                              |                                                                                                                            | Insusceptible of vaccination. | Had Small-pox. |                                         |                                                                                                  |                                      |                                                                            |                                                   |                                                                                                                                     |                                                                                                  |                                                                                         |
| (1)                        | (2)                                                                          | (3)                                                                                                                        | (4)                           | (5)            | (6)                                     | (7)                                                                                              | (8)                                  | (9)                                                                        | (10)                                              | (11)                                                                                                                                | (12)                                                                                             | (13)                                                                                    |
| Colchester ..              | 1,783                                                                        | 692                                                                                                                        | 13                            | —              | 931                                     | 71                                                                                               | 2                                    | 29                                                                         | 45                                                | —                                                                                                                                   | 732                                                                                              | 1,008                                                                                   |
| Braintree ..               | 727                                                                          | 265                                                                                                                        | 4                             | —              | 403                                     | 25                                                                                               | 7                                    | 7                                                                          | 3                                                 | 13                                                                                                                                  | 336                                                                                              | 407                                                                                     |
| Saffron Walden ..          | 476                                                                          | 280                                                                                                                        | 1                             | —              | 151                                     | 24                                                                                               | 5                                    | 1                                                                          | 6                                                 | 8                                                                                                                                   | 298                                                                                              | 141                                                                                     |
| Epping ..                  | 977                                                                          | 442                                                                                                                        | 3                             | —              | 391                                     | 43                                                                                               | 14                                   | 20                                                                         | 52                                                | 12                                                                                                                                  | 568                                                                                              | 462                                                                                     |
| South Western ..           | 2,657                                                                        | 775                                                                                                                        | 7                             | —              | 1,559                                   | 111                                                                                              | 23                                   | 26                                                                         | 91                                                | 65                                                                                                                                  | 1,262                                                                                            | 1,550                                                                                   |
| South Eastern ..           | 1,974                                                                        | 481                                                                                                                        | 4                             | —              | 995                                     | 61                                                                                               | 14                                   | 129                                                                        | 80                                                | 210                                                                                                                                 | 440                                                                                              | 957                                                                                     |
| Southern ..                | 5,880                                                                        | 1,947                                                                                                                      | 22                            | —              | 2,867                                   | 207                                                                                              | 67                                   | 160                                                                        | 261                                               | 349                                                                                                                                 | 2,530                                                                                            | 3,099                                                                                   |
| Chelmsford ..              | 1,795                                                                        | 620                                                                                                                        | 8                             | —              | 972                                     | 52                                                                                               | 12                                   | 23                                                                         | 77                                                | 31                                                                                                                                  | 655                                                                                              | 908                                                                                     |
|                            | 16,269                                                                       | 5,502                                                                                                                      | 62                            | —              | 8,269                                   | 594                                                                                              | 144                                  | 395                                                                        | 615                                               | 688                                                                                                                                 | 6,821                                                                                            | 8,532                                                                                   |

The Totals of the figures in columns 3 to 11 agree with the figure in Column 2.



other Vaccination Officers who were duly notified ; in 144 cases vaccination was postponed by medical certificate, 62 proved insusceptible of vaccination, and 594 died unvaccinated. At the end of the year, 688 births remained which had not been entered in the vaccination register or temporarily accounted for in the report book.

With regard to the number of persons successfully vaccinated and re-vaccinated at the cost of the rates by Public Vaccinators and Medical Officers of Poor Law Institutions, the Clerk of the County Council has kindly forwarded to me the following information in respect of the year ended 30th September, 1934.

Number of successful Primary Vaccinations of persons :—

|                                  |       |
|----------------------------------|-------|
| (a) Under 1 year of age .. .. .  | 4,326 |
| (b) One year and upwards .. .. . | 819   |
| (c) Total .. .. .                | 5,145 |

Number of successful re-vaccinations, *i.e.*, successful vaccinations of persons who had been successfully vaccinated at some previous time .. .. . 324

With reference to the report for 1933, no information is available with reference to the proposed amendment of the Vaccination Acts in regard to compulsory vaccinations.

### VENEREAL DISEASE.

Under the London and Home Counties Venereal Diseases scheme, patients from the Administrative County of Essex may attend for advice and treatment at most of the large London Hospitals. Other clinics available for Essex patients have been established at Chelmsford, Colchester and Ipswich General Hospitals, at Southend Borough Sanatorium and also at Gravesend (*ad hoc*). In addition, patients from Essex have attended at the Prince of Wales Hospital, Tottenham.

Consideration is still being given to the establishment of Venereal Disease Clinics in Walthamstow and Tilbury.

Table II on page 13 shows a further large increase in the total attendances of Essex patients in 1934 (72,442) compared with 1933 (63,368). There was, however, a decrease in the number of in-patient days.

In January, 1934, Dr. W. A. M. Stewart, Assistant County Medical Officer, took over the duties of Medical Officer at the Colchester Venereal Disease Clinic in place of Dr. M. P. Reddington (part-time) resigned.

### METEOROLOGY.

The information given in Table III has again been obtained through the kindness of the County Meteorological Station at Chelmsford.

The year was again very dry though rain totalling 18.67 inches fell on 160 days compared with 13.64 inches on 158 days in 1933, and an average of 22.3 inches for



TABLE II.

## TREATMENT OF VENEREAL DISEASE, YEAR 1934.

| Treatment Centre.        | Patients from all Areas.<br>Total No. treated for first time. | ESSEX PATIENTS.                                    |                |             |          |        |       | Total No. of Attendances of Essex Patients. | In-patient Days. | Number of doses of Arseno-Benzene Compounds given in Out-patient Clinic and In-patient Department. | Hostels.<br>In-patient days. |
|--------------------------|---------------------------------------------------------------|----------------------------------------------------|----------------|-------------|----------|--------|-------|---------------------------------------------|------------------|----------------------------------------------------------------------------------------------------|------------------------------|
|                          |                                                               | Total Number treated for first time suffering from |                |             |          |        |       |                                             |                  |                                                                                                    |                              |
|                          |                                                               | Syphilis.                                          | Soft Chancres. | Gonorrhoea. | Not V.D. | Total. |       |                                             |                  |                                                                                                    |                              |
| London Hospitals         | 28123                                                         | 162                                                | 10             | 558         | 533      | 1263   | 64162 | 2056                                        | 3488             | 1419                                                                                               |                              |
| St.Bartholomew's, London | 1019                                                          | —                                                  | —              | 4           | 7        | 11     | 85    | —                                           | —                | —                                                                                                  |                              |
| Chelmsford               | 25                                                            | 6                                                  | 1              | 15          | 3        | 25     | 224   | —                                           | 43               | —                                                                                                  |                              |
| Colchester               | 162                                                           | 39                                                 | 4              | 71          | 28       | 142    | 8548  | 523                                         | 740              | —                                                                                                  |                              |
| Ipswich                  | 194                                                           | 1                                                  | —              | 3           | 3        | 7      | 127   | 31                                          | 16               | —                                                                                                  |                              |
| Southend                 | 358                                                           | 11                                                 | 1              | 32          | 30       | 74     | 1064  | —                                           | 66               | —                                                                                                  |                              |
| Gravesend                | 271                                                           | 17                                                 | 3              | 36          | 23       | 79     | 2578  | —                                           | 359              | —                                                                                                  |                              |
| Tottenham                | 567                                                           | 9                                                  | —              | 12          | 17       | 38     | 654   | 53                                          | 111              | —                                                                                                  |                              |
| Total for 1934...        | 30,719                                                        | 245                                                | 19             | 731         | 644      | 1639   | 72442 | 2663                                        | 4823             | 1419                                                                                               |                              |
| Total for 1933...        | 31,116                                                        | 303                                                | 20             | 774         | 613      | 1710   | 63368 | 3491                                        | 4942             | 1307                                                                                               |                              |
| " 1932...                | 29,935                                                        | 274                                                | 13             | 693         | 659      | 1639   | 53444 | 2288                                        | 4688             | 2173                                                                                               |                              |
| " 1931...                | 27,970                                                        | 281                                                | 30             | 580         | 564      | 1455   | 45007 | 2245                                        | 4949             | 2416                                                                                               |                              |
| " 1930...                | 29,086                                                        | 322                                                | 20             | 503         | 543      | 1388   | 33614 | 1311                                        | 3429             | 2601                                                                                               |                              |
| " 1929...                | 26,516                                                        | 315                                                | 14             | 466         | 434      | 1229   | 28523 | 1632                                        | 2817             | 2222                                                                                               |                              |

the 10 years 1925—1934. Certain rural areas in the County were seriously affected by the shortage of rain water and reference should be made to the heading on Water Supplies on page 47.

TABLE III.

OBSERVATIONS FROM THE COUNTY METEOROLOGICAL STATION AT CHELMSFORD.

| 1934.     | Dry bulb readings. | Wet bulb readings. | Maximum readings. | Minimum readings. | Absolute maximum. | Date of absolute maximum. | Absolute minimum. | Date of absolute minimum. | Number of rainy days. | Rainfall in inches. |
|-----------|--------------------|--------------------|-------------------|-------------------|-------------------|---------------------------|-------------------|---------------------------|-----------------------|---------------------|
| January   | 37.5               | 36.2               | 45.2              | 32.2              | 56                | 18th                      | 19                | 24th & 25th               | 20                    | 1.36                |
| February  | 35.6               | 34.5               | 45.9              | 30.0              | 53                | 12th and 22nd             | 20                | 3rd                       | 8                     | 0.19                |
| March     | 40.5               | 39.0               | 48.7              | 33.7              | 57                | 25th                      | 26                | 2nd                       | 15                    | 2.06                |
| April     | 47.4               | 45.8               | 55.8              | 39.5              | 75                | 15th                      | 26                | 5th                       | 18                    | 2.04                |
| May       | 55.3               | 51.3               | 64.7              | 43.2              | 78.8              | 12th                      | 34                | 17th                      | 8                     | 0.51                |
| June      | 62.2               | 56.8               | 70.6              | 52.1              | 86                | 17th                      | 38                | 13th                      | 11                    | 1.35                |
| July      | 65.01              | 62.2               | 75.6              | 52.7              | 82                | 8th & 18th                | 45                | 4th & 11th                | 9                     | 1.86                |
| August    | 63.09              | 59.8               | 68.4              | 50.87             | 80                | 8th & 18th                | 40                | 26th & 30th               | 11                    | 1.46                |
| September | 62.2               | 58.7               | 70.9              | 48.9              | 82                | 7th                       | 36                | 22nd                      | 6                     | 0.95                |
| October   | 52.6               | 50.9               | 59.5              | 46.1              | 68                | 7th                       | 26                | 31st                      | 15                    | 1.41                |
| November  | 42.85              | 42.2               | 48.2              | 38.0              | 55                | 3rd                       | 26                | 1st                       | 11                    | 1.52                |
| December  | 46.1               | 45.1               | 50.9              | 43.5              | 57                | 8th                       | 34                | 21st                      | 29                    | 3.96                |
| TOTAL—    |                    |                    |                   |                   |                   |                           |                   |                           |                       |                     |
| Year 1934 | ...                | ...                | ...               | ...               | ...               | ...                       | ...               | ...                       | ...                   | 18.67               |
| „ 1933    | ...                | ...                | ...               | ...               | ...               | ...                       | ...               | ...                       | ...                   | 13.64               |

## EXAMINATION OF BACTERIOLOGICAL SPECIMENS.

The County Council continued the arrangements with Dr. John F. Beale, of 91, Queen Victoria Street, London, E.C.4 (Telephone No. : Central 6836) whereby he acts as part-time Bacteriologist for Essex.

Table IV on page 17 sets out the number and type of specimens examined, from which it will be observed that during 1934, 24,576 specimens were dealt with, compared with 16,495 in 1933. In addition, Dr. Beale examined 244 specimens of sewage and trade effluents and river water.

Dr. Beale has kindly supplied the following report on the work undertaken during the year 1934 :—

The work of the laboratory embraces both chemical analyses and bacteriological and biological investigations and, consistent with progress and development in medical science, becomes more and more extensive year by year.



The number and nature of the specimens received during the year and the character of the examinations to which they were submitted, is illustrated by the following statistical summary.

For purposes of convenience the specimens are divided into 3 groups, as follows :—

|                 |                                                                                                                                                               |        |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <i>Group A.</i> | Samples of Water, Sewage Effluents and Trade Wastes .. .. .                                                                                                   | 269    |
| <i>Group B.</i> | Samples of Milk and other Foods .. .. .                                                                                                                       | 997    |
| <i>Group C.</i> | Pathological Specimens received from Infectious Diseases and other Hospitals, Sanatoria, Medical Officers of Health and General Medical Practitioners .. .. . | 24,576 |
| Total .. .. .   |                                                                                                                                                               | 25,842 |

*Group A. Samples of Water, Sewage Effluents, &c.*

The character and extent of the examination of these samples vary according to requirements and the distribution was as follows :—

|     |                                                                                  |     |
|-----|----------------------------------------------------------------------------------|-----|
| (1) | Chemical Analysis of samples of Drinking Water ..                                | 29  |
| (2) | Bacteriological Analysis of samples of Drinking Water ..                         | 29  |
| (3) | Chemical Analysis of samples of River Water .. ..                                | 4   |
| (4) | Chemical Analysis of samples of Sewage Effluents and Trade Wastes .. .. .        | 236 |
| (5) | Bacteriological Analysis of samples of Sewage Effluents and Trade Wastes .. .. . | 1   |

The samples of drinking water include samples from the Public Water Supplies of the County and the majority of the remainder were collected from private wells for the purpose of ascertaining their suitability for drinking, domestic and dairy purposes.

The analyses of the samples of Sewage Effluents and Trade Wastes are directed to ascertain their general quality and constitution and their compliance or otherwise with the standards prescribed by the County Council for such discharges into rivers.

*Group B. Samples of Milk.*

These can be divided into 3 sub-groups :—

(1) *Ordinary Raw Milk.*

Samples examined to ascertain the cleanliness or otherwise of the milk.

179 specimens were received and their examination included in each case :—



- (a) Observations with regard to suspended dirt.
- (b) Cultural examination for *Bacillus Coli*.
- (c) Microscopical examination for Tubercle Bacilli, Pus, Blood and other abnormal constituents.

(2) *Graded Milks.*

25 samples of Graded Milk were examined bacteriologically by the methods prescribed by the Ministry of Health for the purpose of ascertaining whether or not the milk complied with the required standards.

(3) *Animal Inoculation Tests for Tubercle Bacilli.*

789 samples of milk were submitted to animal inoculation tests for Tuberculosis, and 91 or 11.5 per cent. gave positive results. This is practically the same percentage of positive samples obtained during the preceding year.

The total number of samples of milk examined, therefore, is 993.

*Other Foods.*

Four samples of Oysters were examined bacteriologically.

The object of these examinations was to ascertain the cleanliness of the oysters, *i.e.*, their freedom or otherwise from dangerous sewage pollution.

All samples proved clean and conformed to the standards recommended for oysters.

*Group C. Pathological Specimens.*

The number of specimens examined under this heading was 24,576, compared with 16,495 examined during the preceding year.

The distribution of these specimens throughout the Administrative County and their approximate classification are shewn in Table ..., but the following demonstrates more amply the character of these investigations :—

1. *Swabs from Throat, Nose and Ear.*

These comprise the majority of specimens, the number of swabs examined for Diphtheria being 17,682. Positive results were obtained in 2,754, or 15.7 per cent. of the swabs examined.

All swabs are examined by cultural methods, and a number of direct microscopical examinations, either for the purpose of detecting organisms other than Diphtheria bacilli, such as those of Vincent's Angina, or for the early detection of diphtheria.

Swabs and other urgent specimens are examined on all days, including Sundays and Bank Holidays. This arrangement is made in order to minimise delay in diagnosis and senders of specimens should assist this effort by ensuring the delivery of swabs to the laboratory as early as possible.



TABLE IV.

SHEWING NUMBER AND TYPE OF SPECIMENS EXAMINED BY THE  
BACTERIOLOGIST FOR ESSEX—YEAR 1934.

| SANITARY DISTRICTS.       | Diph-<br>theria. | Sputa.      | Typhoid    | Ring-<br>worm. | Miscel-<br>laneous. | Total<br>Specimens<br>examined. | Virulence<br>Tests for<br>Diphth'ria<br>and<br>Tubercle. |
|---------------------------|------------------|-------------|------------|----------------|---------------------|---------------------------------|----------------------------------------------------------|
| <b>URBAN—</b>             |                  |             |            |                |                     |                                 |                                                          |
| Barking B. ....           | +3905            | +257        | 33         | 1              | 36                  | 4232                            | 41                                                       |
| Benfleet ....             | 147              | 25          | 1          | ...            | ...                 | 173                             | ...                                                      |
| Billericay ....           | +959             | +200        | 9          | 1              | 5                   | 1174                            | 2                                                        |
| Braintree & Bocking       | 183              | +76         | 3          | ...            | 18                  | 280                             | 2                                                        |
| Brentwood ....            | 400              | +94         | 3          | ...            | 27                  | 524                             | ...                                                      |
| Brightlingsea ....        | —                | 4           | ...        | ...            | 1                   | 5                               | ...                                                      |
| Burnham-on-Crouch         | 3                | 3           | ...        | ...            | ...                 | 6                               | ...                                                      |
| Canvey Island ....        | 34               | 19          | ...        | ...            | 5                   | 58                              | ...                                                      |
| Chelmsford B. ....        | +217             | +53         | 7          | ...            | 63                  | 340                             | ...                                                      |
| Chigwell ....             | 18               | 7           | 8          | ...            | 22                  | 55                              | ...                                                      |
| Chingford ....            | +317             | +168        | 2          | ...            | 11                  | 498                             | 7                                                        |
| Clacton-on-Sea ....       | 113              | +80         | 1          | ...            | 1                   | 195                             | ...                                                      |
| Colchester B. ....        | 2                | +177        | 17         | ...            | 5                   | 201                             | ...                                                      |
| Dagenham ....             | 591              | +253        | 2          | 18             | 24                  | 888                             | 6                                                        |
| Epping ....               | +396             | +65         | 2          | 4              | 3                   | 470                             | ...                                                      |
| Frinton & Walton          | 14               | 9           | ...        | ...            | 7                   | 30                              | ...                                                      |
| Grays ....                | 582              | +137        | 9          | 2              | 3                   | 733                             | ...                                                      |
| Halstead ....             | +85              | +30         | 17         | ...            | 6                   | 138                             | ...                                                      |
| Harwich B. ....           | 162              | +60         | 1          | 18             | ...                 | 241                             | ...                                                      |
| Hornchurch ....           | 256              | +887        | 1          | 1              | 11                  | 1136                            | 1                                                        |
| Ilford B. ....            | +706             | +660        | 21         | ...            | 107                 | 1494                            | 109                                                      |
| Leyton B. ....            | +2512            | +527        | 9          | 9              | 22                  | 3079                            | 3                                                        |
| Maldon B. ....            | 137              | +41         | 3          | 4              | 10                  | 195                             | ...                                                      |
| Purfleet ....             | 53               | 9           | ...        | ...            | 1                   | 63                              | ...                                                      |
| Rayleigh ....             | 151              | 7           | 2          | ...            | ...                 | 160                             | ...                                                      |
| Romford ....              | +1909            | +207        | 8          | 10             | 32                  | 2166                            | 27                                                       |
| Saffron Walden B.         | 36               | +24         | ...        | 1              | 8                   | 69                              | ...                                                      |
| Tilbury ....              | 220              | 45          | 5          | 1              | ...                 | 271                             | ...                                                      |
| Waltham Holy Cross        | +455             | 59          | 2          | ...            | 12                  | 528                             | 1                                                        |
| Walthamstow B. ....       | 66               | +566        | 13         | 7              | 40                  | 692                             | 8                                                        |
| *Walton-on-the-Naze       | 8                | 1           | ...        | ...            | ...                 | 9                               | ...                                                      |
| Wanstead & Woodford       | 146              | +63         | 5          | 2              | 16                  | 232                             | ...                                                      |
| West Mersea ....          | 2                | 4           | ...        | 1              | 20                  | 27                              | ...                                                      |
| Witham ....               | 46               | 24          | 1          | 3              | 14                  | 88                              | ...                                                      |
| Wivenhoe ....             | 4                | 7           | ...        | 1              | ...                 | 12                              | ...                                                      |
| *Woodford ....            | 55               | 3           | ...        | ...            | ...                 | 58                              | ...                                                      |
| <b>Total</b> ...          | <b>14890</b>     | <b>4851</b> | <b>185</b> | <b>84</b>      | <b>530</b>          | <b>20540</b>                    | <b>207</b>                                               |
| <b>RURAL—</b>             |                  |             |            |                |                     |                                 |                                                          |
| *Belchamp ....            | 3                | ...         | ...        | ...            | ...                 | 3                               | ...                                                      |
| *Billericay ....          | +380             | 107         | 18         | 2              | 1                   | 508                             | ...                                                      |
| Braintree ....            | +253             | +116        | 13         | 3              | 189                 | 574                             | 13                                                       |
| *Bumpstead ....           | —                | 1           | ...        | ...            | ...                 | 1                               | ...                                                      |
| Chelmsford ....           | 83               | 56          | 3          | 3              | 37                  | 182                             | ...                                                      |
| Dunmow ....               | 35               | +18         | 2          | 3              | 25                  | 83                              | ...                                                      |
| Epping... ..              | 117              | 46          | 11         | 2              | 9                   | 185                             | ...                                                      |
| Halstead ....             | 39               | 27          | 1          | 1              | 1                   | 69                              | ...                                                      |
| Lexden & Winstree         | 47               | 16          | 1          | ...            | 28                  | 92                              | ...                                                      |
| Maldon ....               | +208             | 16          | 1          | 8              | 5                   | 238                             | ...                                                      |
| Ongar ... ..              | 59               | 8           | 9          | 6              | 38                  | 120                             | ...                                                      |
| Orsett ... ..             | +1134            | 15          | 7          | ...            | ...                 | 1156                            | 5                                                        |
| Rochford ....             | +336             | 14          | ...        | 1              | 1                   | 354                             | ...                                                      |
| Romford ....              | 20               | +316        | ...        | 1              | 1                   | 338                             | ...                                                      |
| Saffron Walden            | 47               | 13          | ...        | ...            | 1                   | 61                              | ...                                                      |
| *Stansted ... ..          | 1                | 3           | ...        | ...            | ...                 | 4                               | ...                                                      |
| Tendring .. ..            | 28               | +37         | ...        | ...            | 3                   | 68                              | 1                                                        |
| <b>Totals— Rural</b> ...  | <b>2792</b>      | <b>809</b>  | <b>66</b>  | <b>30</b>      | <b>339</b>          | <b>4036</b>                     | <b>19</b>                                                |
| <b>Urban</b> ... ..       | <b>14890</b>     | <b>4851</b> | <b>185</b> | <b>84</b>      | <b>530</b>          | <b>20540</b>                    | <b>207</b>                                               |
| <b>Adminis. County</b> .. | <b>17682</b>     | <b>5660</b> | <b>251</b> | <b>114</b>     | <b>869</b>          | <b>24576</b>                    | <b>226</b>                                               |

\*These figures cover the period 1st January--31st March.  
†Includes specimens taken at Isolation Hospital in District.  
+ " " " " Sanatorium or Dispensary.



The fact that there is no ordinary postal delivery in London on Sundays is often overlooked, hence swabs posted on Saturdays are not received until Monday. This is a serious delay which could be avoided by despatching the swab by express post, railway or special messenger.

An increasing number of throat and nose swabs are received for examination for Streptococci. Such swabs are mostly taken in connection with cases of Scarlet Fever and Puerperal Fever from patients and contacts, and Streptococci, when isolated, are differentiated into Hæmolytic and non-Hæmolytic strains.

In these cases, as in positive diphtheria swabs, the results should be accepted with due caution and correlated with the clinical findings.

In addition to the swabs examined for diphtheria bacilli, Vincent's Angina and Streptococci, 71 swabs were submitted to complete bacteriological examination, mostly for the purpose of ascertaining the causal organism of tonsillitis or otitis.

## 2. *Puerperal Sepsis.*

In addition to the swabs examined under this heading and included in the preceding group, 17 specimens of uterine discharge were examined bacteriologically.

Eight specimens of eye discharges from cases of ophthalmia neonatorum were also similarly examined.

## 3. *Tuberculosis—Specimens of Sputum.*

5,660 specimens of sputum were examined microscopically for tubercle bacilli, and 1,763, or 31.1 per cent., gave a positive result.

All specimens are examined by the "concentration method" before a negative result is given.

In addition to search for Tubercle Bacilli, many specimens were examined microscopically and culturally for other bacteria, and occasionally also for asbestosis bodies, or other abnormalities.

It should be borne in mind that many of the specimens of sputum are repeat specimens from diagnosed cases of pulmonary tuberculosis undergoing treatment in Sanatoria, and the percentage of positive results is therefore high.

A large number of examinations for Tuberculosis is made on specimens other than sputum, such as pus, urine, fæces, cerebro spinal fluid, pleural fluid, &c.

## 4. *Specimens of Pus.*

Of the 71 specimens received, the following examinations were made :—



|                                                                     |    |
|---------------------------------------------------------------------|----|
| (a) Bacteriological Examination, microscopical and cultural .. .. . | 66 |
| (b) Microscopical Examination for tubercle bacilli ..               | 66 |

### 5. *Specimens of Urine.*

328 specimens of urine were examined as follows :—

|                                                       |     |
|-------------------------------------------------------|-----|
| (a) Chemical Examinations .. .. .                     | 292 |
| (b) General Microscopical Examinations .. .. .        | 309 |
| (c) Microscopical Examination for tubercle bacilli .. | 303 |
| (d) Bacteriological Examinations, cultural .. .. .    | 318 |
| (e) Special Examinations .. .. .                      | 11  |

Of the 303 specimens examined for Tubercle Bacilli, 18, or approximately 6 per cent., gave a positive result.

### 6. *Specimens of Faeces.*

144 specimens of faeces were submitted to the following examinations :—

|                                                       |    |
|-------------------------------------------------------|----|
| (a) General microscopical examination .. .. .         | 14 |
| (b) Microscopical Examination for tubercle bacilli .. | 86 |
| (c) Bacteriological Examination—cultural .. .. .      | 60 |
| (d) Chemical Examination .. .. .                      | 5  |

The general microscopical examinations are mostly made for the detection of blood, pus, amœbæ of dysentery and intestinal parasites and ova.

Of the 86 specimens examined for Tubercle Bacilli, 2, or 2.4 per cent., gave a positive result.

Most of the bacteriological examinations were specially made for the detection of organisms of the typhoid-salmonella-dysentery groups.

### 7. *Specimens of Cerebro-Spinal and other Fluids.*

These include 42 specimens as follows :—

|                                                               |               |
|---------------------------------------------------------------|---------------|
| (1) Cerebro-Spinal Fluid .. .. .                              | 19 specimens. |
| (a) Chemical Examination :                                    | 17            |
| (b) Cytological Examination :                                 | 19            |
| (c) Microscopical Examination for tubercle bacilli :          | 17            |
| (d) Bacteriological Examination, microscopical and cultural : | 16            |
| (2) Pleural Fluids .. .. .                                    | 17 specimens. |
| (3) Joint Fluids .. .. .                                      | 6 specimens.  |

All of these were submitted to general microscopical examination, microscopical examination for tubercle bacilli, and cultural examination.

Of the 42 specimens of fluid examined for Tubercle Bacilli, 4, or 9.5 per cent., gave a positive result.

#### 8. *Animal Inoculation Tests for Tubercle Bacilli.*

13 specimens of urine, pleural fluids and pus were submitted to animal tests for tubercle bacilli and 2 gave positive results.

#### 9. *Specimens of Blood.*

241 specimens of blood received during the year were examined as follows :—

|                                                       |    |    |    |     |
|-------------------------------------------------------|----|----|----|-----|
| (a) Cultural Examination                              | .. | .. | .. | 13  |
| (b) Cytological Examination, differential counts, &c. |    |    |    | 22  |
| (c) Agglutination reactions :—                        |    |    |    |     |
| Typhoid-paratyphoid-dysentery group                   |    | .. |    | 189 |
| B. abortus group                                      | .. | .. | .. | 6   |
| Felix-Weil Reaction                                   | .. | .. | .. | 1   |
| (d) Blood Urea Estimations                            | .. | .. | .. | 5   |
| (e) Examination for Malarial Parasites                | .. | .. | .. | 5   |

#### 10. *Specimens of Hair and Skin Scrapings.*

114 specimens were examined for Ringworm Fungus and 32, or 28.0 per cent., gave positive results.

#### 11. *Histological Examinations.*

Histological examinations are not ordinarily carried out under the Public Health Laboratory Scheme.

11 specimens were examined by special arrangement and related to patients undergoing treatment in the County Sanatoria.

Two Autogenous Vaccines were similarly prepared by special arrangement.

The information given under this heading in previous years in regard to the Bacteriological work carried out by Dr. J. F. Beale, on behalf of the Public Assistance Committee, is this year included in the Public Assistance part of the report on page 98.

### LOCAL GOVERNMENT ACT, 1929.

SECTION 46. REVIEW OF COUNTY DISTRICTS. In the report for the year 1933, reference was made to the following changes in the County Districts which took form from the 1st October, 1933 :—

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Loughton Urban District       | } Constituted the Urban District of Chigwell. |
| Buckhurst Hill Urban District |                                               |
| and the Parish of Chigwell    |                                               |



|                                                                                                                              |   |                                                   |
|------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------|
| Shoeburyness Urban District<br>and parts of the Parishes of<br>Eastwood, Great Wakering,<br>North Shoebury and Shop-<br>land | } | Transferred to Southend-on-Sea County<br>Borough. |
|------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------|

Part of Braintree Rural District.. Transferred to Witham Urban District.

The Minister of Health has now approved of the whole of the remainder of the County Council's proposals in regard to the revision of County Districts, with the exception of the area comprising the Grays Thurrock, Tilbury and Purfleet Urban Districts and the Rural District of Orsett. The County Council's supplementary proposals in regard to these areas are in abeyance.

As from the 1st April, 1934, the following re-arrangements of County Districts came into operation :—

(1) *New Districts.*

- (a) The Urban Districts of Wanstead and Woodford were formed into one Urban District known as Wanstead and Woodford Urban District.
- (b) The Parishes of Basildon, Bowers Gifford, part of the Parish of Great Burstead, Laindon, Lee Chapel, part of the Parish of Little Burstead, Nevendon, North Benfleet, Pitsea, Vange and Wickford (previously part of the Billericay Rural District), were formed into a new Urban District known as the Billericay Urban District.
- (c) The Urban Districts of Frinton-on-Sea and Walton-on-the-Naze and the Parish of Great Holland and a portion of the Parish of Kirby-le-Soken, in the Tendring Rural District, were formed into a new Urban District known as the Frinton and Walton Urban District.

(2) *Boroughs and Urban Districts Extended.*

| Name of extended Borough or Urban District. | Transferred Area.                                                                                                                                                                                                                                                                                                                                  |                                   |   |                                   |             |         |               |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---|-----------------------------------|-------------|---------|---------------|
| (a) Boroughs—                               |                                                                                                                                                                                                                                                                                                                                                    |                                   |   |                                   |             |         |               |
| Chelmsford                                  | .. Parts of Parishes of :—<br><table><tr><td>Broomfield</td><td rowspan="4">}</td><td rowspan="4">Chelmsford Rural District.</td></tr><tr><td>Springfield</td></tr><tr><td>Widford</td></tr><tr><td>Writtle</td></tr></table>                                                                                                                      | Broomfield                        | } | Chelmsford Rural District.        | Springfield | Widford | Writtle       |
| Broomfield                                  | }                                                                                                                                                                                                                                                                                                                                                  | Chelmsford Rural District.        |   |                                   |             |         |               |
| Springfield                                 |                                                                                                                                                                                                                                                                                                                                                    |                                   |   |                                   |             |         |               |
| Widford                                     |                                                                                                                                                                                                                                                                                                                                                    |                                   |   |                                   |             |         |               |
| Writtle                                     |                                                                                                                                                                                                                                                                                                                                                    |                                   |   |                                   |             |         |               |
| Colchester                                  | .. Part of Wivenhoe Urban District.<br>Parts of Parishes of :—<br><table><tr><td>East Donyland</td><td rowspan="4">}</td><td rowspan="4">Lexden &amp; Winstree Rural District.</td></tr><tr><td>Langenhoe</td></tr><tr><td>Stanway</td></tr><tr><td>West Bergholt</td></tr></table><br>Part of Parish of Ardleigh, in the Tendring Rural District. | East Donyland                     | } | Lexden & Winstree Rural District. | Langenhoe   | Stanway | West Bergholt |
| East Donyland                               | }                                                                                                                                                                                                                                                                                                                                                  | Lexden & Winstree Rural District. |   |                                   |             |         |               |
| Langenhoe                                   |                                                                                                                                                                                                                                                                                                                                                    |                                   |   |                                   |             |         |               |
| Stanway                                     |                                                                                                                                                                                                                                                                                                                                                    |                                   |   |                                   |             |         |               |
| West Bergholt                               |                                                                                                                                                                                                                                                                                                                                                    |                                   |   |                                   |             |         |               |

| Name of extended Borough or<br>Urban District. | Transferred Area.                                                 |                                    |
|------------------------------------------------|-------------------------------------------------------------------|------------------------------------|
| Maldon ..                                      | .. Parts of Parishes of :—                                        |                                    |
|                                                | Goldhanger                                                        | } Maldon Rural<br>District.        |
|                                                | Great Totham                                                      |                                    |
|                                                | Heybridge                                                         |                                    |
|                                                | Langford                                                          |                                    |
|                                                | Little Totham                                                     |                                    |
| Urban Districts—                               |                                                                   |                                    |
| Benfleet                                       | .. Part of Parish of Eastwood, in the Rochford<br>Rural District. |                                    |
| Braintree & Bocking                            | Parts of Parishes of :—                                           |                                    |
|                                                | Black Notley                                                      | } Braintree Rural<br>District.     |
|                                                | Bocking                                                           |                                    |
|                                                | Rayne                                                             |                                    |
|                                                | Stisted                                                           |                                    |
|                                                | Part of Parish of Gosfield, in the Halstead<br>Rural District.    |                                    |
| Brentwood                                      | .. Parishes of :—                                                 |                                    |
|                                                | Hutton                                                            | } Billericay<br>Rural<br>District. |
|                                                | Ingrave                                                           |                                    |
|                                                | South Weald                                                       |                                    |
|                                                | Parts of Parishes of :—                                           |                                    |
|                                                | Childerditch                                                      | } Billericay<br>Rural<br>District. |
|                                                | Dunton                                                            |                                    |
|                                                | East Horndon                                                      |                                    |
|                                                | Great Burstead                                                    |                                    |
|                                                | Little Burstead                                                   |                                    |
|                                                | Little Warley                                                     |                                    |
|                                                | Mountnessing                                                      |                                    |
|                                                | Shenfield                                                         |                                    |
|                                                | West Horndon                                                      |                                    |
|                                                | Parts of Parishes of :—                                           |                                    |
|                                                | Cranham                                                           | } Romford<br>Rural<br>District.    |
|                                                | Great Warley                                                      |                                    |
|                                                | Upminster                                                         |                                    |
| Burnham-on-Crouch..                            | Part of Parish of Creeksea, in the Maldon<br>Rural District.      |                                    |
| Chingford                                      | .. Part of Waltham Holy Cross Urban District.                     |                                    |
| Clacton ..                                     | .. Parish of Little Holland, in the Tendring<br>Rural District.   |                                    |
|                                                | Parts of Parishes of :—                                           |                                    |
|                                                | Little Clacton                                                    | } Tendring Rural<br>District.      |
|                                                | St. Osyth                                                         |                                    |



| Name of extended Borough or<br>Urban District. | Transferred Area.                                                                                                                                                                                                                             |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Epping ..                                      | .. Parts of Parishes of :—<br><div>Epping Upland }<br/>Theydon Bois }<br/>Theydon Garnon }</div> Epping<br>Rural<br>District.                                                                                                                 |
| Halstead..                                     | .. Part of Parish of Halstead (Rural), in the<br>Halstead Rural District.                                                                                                                                                                     |
| Hornchurch                                     | .. Part of Romford Urban District.<br><div>Parishes of :—<br/>Rainham }<br/>Wennington }</div> Romford Rural<br>District.<br><div>Altered Parishes of :—<br/>Cranham }<br/>Great Warley }<br/>Upminster }</div> Romford<br>Rural<br>District. |
| Romford..                                      | .. Part of Hornchurch Urban District.<br><div>Parishes of :—<br/>Havering-atte- }<br/>Bower }<br/>Noak Hill }</div> Romford<br>Rural<br>District.                                                                                             |
| Rayleigh..                                     | .. Parts of Parishes of :—<br><div>Eastwood }<br/>Rochford }</div> Rochford Rural<br>District.                                                                                                                                                |

(3) *Transfer of Areas from Boroughs and Urban Districts to Rural Districts, and Parishes.*

| Borough or Urban District from<br>which Area transferred. | District and Parish to which Area<br>transferred.                                                                           |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Borough—                                                  |                                                                                                                             |
| Colchester                                                | .. (a) Tendring Rural District.<br>Parish of Ardleigh.<br>(b) Lexden & Winstree Rural District.<br>Parish of West Bergholt. |
| Urban District—                                           |                                                                                                                             |
| Braintree                                                 | .. Braintree Rural District :—<br>(a) Parish of Black Notley.<br>(b) Parish of Stisted.                                     |

(4) *Rural Districts Abolished.*

The following Rural Districts were abolished as from the 1st April, 1934 :—

|                           |    |                                                                                                                                                                                           |
|---------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Belchamp Rural District   | }  | Transferred to Rural District of Halstead.                                                                                                                                                |
| Bumpstead Rural District  |    |                                                                                                                                                                                           |
| Billericay Rural District | .. | The remaining Parishes in the Rural District not transferred to Brentwood Urban District or Chelmsford Rural District were formed into a new district, namely, Billericay Urban District. |
| Romford Rural District    | .. | The Parishes formerly constituting this Rural District were transferred to the Urban Districts of Romford, Hornchurch and Brentwood.                                                      |
| Stansted Rural District   | .. | All Parishes transferred to Saffron Walden Rural District, with the exception of Great and Little Hallingbury, which were transferred to Dunmow Rural District.                           |

(5) *Rural Districts Altered.*

Minor changes in the constitution of the Rural Districts were approved as follows :—

| Name of Parish.                                                                                                        | Name of District to which transferred. |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Great and Little Hallingbury ..<br>(From Stansted Rural District)                                                      | Dunmow Rural District.                 |
| Bardfield Saling and Great<br>Bardfield<br>(From Dunmow Rural District)                                                | Braintree Rural District.              |
| Mountnessing as altered ..<br>(From Billericay Rural District)                                                         | Chelmsford Rural District.             |
| New Parish of Tiptree, formed<br>from portions of the Maldon<br>Rural District and Lexden &<br>Winstree Rural District | Lexden & Winstree Rural District.      |

SECTION 57. SEWERS OR SEWAGE DISPOSAL WORKS AND WATER SUPPLIES. On 2nd October, 1934, the County Council resolved that certain amendments be made to the existing scheme under Section 57 of the Local Government Act, 1929, a copy of which was included on page 12 of the Annual Report for 1933, and that all applications which had been received should be reviewed in the light of these amendments. As a result the Public Health and Housing Committee reported to the County Council on 5th March, 1935, that they had communicated with the Rural District Councils in the County, requesting them to furnish particulars of any scheme or proposed scheme in



respect of which they intended to make application to the County Council for a contribution under Section 57. Further, that action taken by other County Councils with regard to applications submitted to them under that Section had received consideration, and as a result, a new scheme was submitted. This was approved by the County Council as follows :—

**Scheme for the making of Contributions to District Councils in the County in pursuance of  
Section 57 of the Local Government Act, 1929.**

1. Contributions under Section 57 of the Local Government Act, 1929, shall be limited to Rural District Councils, but applications by a Local Authority other than a Rural District Council may receive consideration in special circumstances. Such contributions shall be available in respect of expenditure in the provision or maintenance of a supply of water, or in the improvement of an existing supply of water, and capital expenditure in connection with the provision or improvement of Sewers or Sewage Disposal Works.

2. Applications shall be referred to the Public Health and Housing Committee for consideration, and will be dealt with in such order of priority as the County Council, on the advice of that Committee, may deem desirable.

3. A Rural District Council shall charge a minimum tariff of  $12\frac{1}{2}$  per cent. on the rateable value for domestic water supplies, and not less than 1s. 6d. per thousand gallons for measured supplies.

4. The surpluses or deficiencies on all water undertakings approved by the County Council for the purposes of this Scheme in a Rural District shall be ascertained, credit being taken for any contributions by way of grants from Government, and the resulting aggregate nett surplus or deficiency together with the loan charges, or equivalent loan charges, in respect of the provision or improvement of sewers or sewage disposal works similarly approved as above, shall be aggregated and expressed as a rate in the £ on the General District Rate.

5. The Rural District Council shall bear the cost of such nett deficiencies and loan charges up to the equivalent of a rate of 6d. in the £ in any year.

6. Any excess beyond the equivalent of a rate of 6d. in the £ shall be borne in equal proportions by the County Council and the Rural District Council.

7. All schemes commenced by 1st April, 1935, shall be deemed to be approved by the County Council unless expressly excluded from such approval, but subject as above, each application will be considered on its merits.

8. No contribution will be made by the County Council unless the District Council gives full effect to Section 190 (4) of the Local Government Act, 1933, by abolishing all special expenses for schemes for the provision, improvement or maintenance of any sewers or sewage disposal works, or of a supply of water, or in the improvement of an existing supply of water, and charging such expenditure as general expenditure of the district.

9. All capital expenditure subsequent to 1st April, 1935, in order to qualify for inclusion in the calculation for grant under this Scheme, must be approved in advance by the County Council, and before giving such approval the County Council will require to be satisfied that the Scheme is necessary, economically devised, and will supply a reasonable number of people, and that such works represent the most satisfactory method of providing the services required. Schemes should not necessarily be limited by Local Government Boundaries.

10. Schemes involving capital expenditure in excess of £250 shall be prepared and carried out by a Consulting Engineer approved by the County Council unless the County Council otherwise agree.

11. Applications under this Scheme shall be made in accordance with the Regulations set out below or with such amended or substituted Regulations as may be in force at the date of the application.



12. Where the Minister of Health undertakes to make a contribution under the Rural Water Supplies Act, 1934, towards the expenses to be incurred by a Local Authority in the County in providing a supply or in improving an existing supply of water in a rural locality, subject to the County Council undertaking to make a contribution either by lump sum or annual payments at least equivalent to the amount of the Exchequer Grant, any such contribution by the County Council shall be regarded as a payment on account of the sum due under paragraph 6, and where it equals or exceeds the latter sum no further payment will be due in respect of the particular year. If the contribution by the County Council is made by way of a capital grant or lump sum, the equivalent annual payment shall be ascertained and shall be treated in a manner similar to the above.

13. This Scheme is subject to revision or revocation by the County Council at any time, so far as it concerns applications not already granted.

#### Regulations relating to Applications of Rural District Councils.

1. On first making an application for Grant, after the adoption of this Scheme by the County Council, Rural District Councils shall forward particulars of all existing schemes, giving details of :—

- (a) Scale of charges.
- (b) Income and expenditure for the last completed financial year on all the Council's water undertakings, including payments in respect of public wells, guarantees to Water Companies, &c., either in detail for each parish or in total.
- (c) Loan charges or equivalent loan charges falling on rates during the same period in respect of the provision or improvement of sewers or sewage disposal works.
- (d) The resulting estimated nett deficiency expressed as a rate in the £, over the whole Rural District for the last completed financial year.
- (e) Particulars of Government Grants (if any).
- (f) In the case of any new schemes proposed particulars of estimated capital cost and estimated annual income and expenditure and details of the scale of charges proposed to be put into force.

2. Upon the approval of payment of grant to any Rural District, the County Council shall pay half-yearly on or about 30th September and 31st March, a sum equivalent to one-half of the approved estimated grant for that year. A detailed estimate, showing the amount payable by the County Council, shall be submitted to the County Council by the District Council not later than 1st December preceding the year of account.

3. The payments made under Clause (2) above shall be considered to be made on account of the actual deficiency for the year. At the close of each financial year the Rural District Council shall submit to the County Council a summarised statement, giving particulars of the actual income and expenditure on the Council's water undertakings and the loan charges in respect of sewers or sewage disposal works for the year, together with a formal claim for grant.

4. Any contribution payable under this scheme may be by way of a capital sum or otherwise as the County Council may decide.

5. The County Council reserve the right to ignore or limit for purposes of grant calculation, any capital expenditure charged to Revenue and any apportionment of overhead expenses and salaries of administrative officers.

6. The terms on which loans are raised shall be subject to the approval of the County Council.

7. The County Accountant shall be entitled to inspect the Accounts of the Council and shall be given all information he may reasonably require to enable him to verify the claim.

8. Upon verification of the claim submitted under Clause (3) above, the balance ascertained to be due to or from the Rural District Council shall be adjusted on the next succeeding half-yearly payment.



9. In the event of a scale of charges in excess of the standard tariff being in operation or of charges being made for extras, the income therefrom shall be duly brought to credit in the Income and Expenditure Account for the purpose of calculating the appropriate grant.

10. The nett surplus (if any) arising on water and sewage schemes in any one year shall be taken into account in calculating the grant in respect of the following year.

11. The County Council reserve to themselves the right to withhold grant at any time if they are not satisfied that the Rural District Council's undertakings are properly managed, and for this purpose the County Council's officers shall be given such facilities for inspection as they may require.

12. In the event of any alteration of the boundaries of any district, or other re-arrangement of County Districts under the Local Government Act, 1929, or the Local Government Act, 1933, the amount of the grant payable by the County Council in pursuance of this Scheme shall be subject to re-consideration and revision if necessary by such Council.

**GRANTS TO RURAL DISTRICTS.** The following grants were approved by the County Council on 2nd October, 1934, such grants being equivalent to those made by the Ministry of Health under the Rural Water Supplies Act, 1934 :—

| Rural District. | Areas to be served.                                        | Amount of Grant.                   |
|-----------------|------------------------------------------------------------|------------------------------------|
| Saffron Walden  | .. Western and Eastern Areas                               | .. £6,400                          |
| Epping          | .. Matching, Great Parndon,<br>North Weald Bassett, Roydon | .. £30 per annum for<br>ten years. |

**SECTION 58. APPOINTMENT OF MEDICAL OFFICERS OF HEALTH.** As the Ministry of Health's approval had been obtained to all the County Council's recommendations in regard to the revision of County Districts, with the exception of those relating to the Grays, Tilbury, Purfleet and Orsett Districts, the County Scheme under Section 58 was completed. On the 3rd July, 1934, arrangements were formulated by the County Council for securing that every Medical Officer of Health subsequently appointed for a County District shall be restricted by the terms of his employment from engaging in private practice as a medical practitioner; and the following scheme was submitted to the Ministry of Health and to the Councils of all districts in the County :—

1. For the purposes of the appointment of medical officers of health the Administrative County of Essex shall be divided into twenty-four districts and combined districts specified in the schedule hereto.

2. The County Districts comprised within each combined district shall be those mentioned opposite the number of each combined district in Column 2 of Parts II and III of the said schedule.

3. On a vacancy occurring in the office of medical officer of health for any County District it shall be a term of the appointment of any person to fill the vacancy that he shall not engage in private practice as a medical practitioner.

4. Whenever a vacancy occurs hereafter in the office of medical officer of health in any one or more of the County Districts or in any of the offices of medical officer of health of a Port Sanitary District mentioned in Column 2 of Parts II and III of the said schedule, the Council of the district or districts or the Port Sanitary Authority in which the vacancy occurs shall make such provisional or other arrangements with the concurrence of the Councils of the other County Districts or Port Sanitary Authority in the same combined district as will ensure the appointment at as early a date as possible of a medical officer of health for all the County Districts and Port Sanitary District comprised in such combined district.



5. On a vacancy hereafter occurring in the office of medical officer of health for any of the County Districts mentioned in Part III of the said schedule the person appointed to fill the vacancy shall be appointed jointly by the Council of the County District and the County Council in order that the medical officer of health so appointed shall act as medical officer of health for all the County Districts comprised in any particular combined district and also as assistant medical officer for the County Council.

### THE SCHEDULE.

#### PART I.

*Districts requiring alone the whole-time services of a Medical Officer of Health.*

Borough of Barking.  
 Borough of Chelmsford.  
 Borough of Colchester (with the Port Sanitary District).  
 Borough of Ilford.  
 Borough of Leyton.  
 Borough of Walthamstow.  
 Urban District of Dagenham.  
 Urban District of Hornchurch.  
 Urban District of Romford.

#### PART II.

*Districts Combined for the whole-time Services of a Medical Officer of Health.*

| Reference Number<br>of Combined<br>District.<br>Column 1. |    |    |    |    | Districts to be included therein.<br>Column 2.                                                                                                                                          |
|-----------------------------------------------------------|----|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                                                         | .. | .. | .. | .. | Borough of Harwich.<br>Harwich Port Sanitary District.                                                                                                                                  |
| 2                                                         | .. | .. | .. | .. | Borough of Maldon.<br>Maldon Port Sanitary District.<br>Urban District of Burnham-on-Crouch.<br>Urban District of Witham.<br>Rural District of Chelmsford.<br>Rural District of Maldon. |

#### PART III.

*Districts appointing with the County Council a joint Medical Officer of Health and Assistant Medical Officer.*

| Reference Number<br>of County District<br>or Combined<br>District.<br>Column 1. |    |    |    |    | Districts to be included therein.<br>Column 2.                                                          |
|---------------------------------------------------------------------------------|----|----|----|----|---------------------------------------------------------------------------------------------------------|
| 3                                                                               | .. | .. | .. | .. | Urban District of Clacton.<br>Urban District of Frinton and Walton.                                     |
| 4                                                                               | .. | .. | .. | .. | Urban District of West Mersea.<br>Urban District of Wivenhoe.<br>Rural District of Lexden and Winstree. |
| 5                                                                               | .. | .. | .. | .. | Urban District of Brightlingsea.<br>Rural District of Tendring.                                         |



| Reference Number<br>of County District<br>or Combined<br>District.<br>Column 1. | Districts to be included therein.<br>Column 2. |    |    |                                                                                                                                     |
|---------------------------------------------------------------------------------|------------------------------------------------|----|----|-------------------------------------------------------------------------------------------------------------------------------------|
| 6                                                                               | ..                                             | .. | .. | Urban District of Braintree and<br>Bocking.                                                                                         |
| 7                                                                               | ..                                             | .. | .. | Rural District of Braintree.<br>Rural District of Dunmow.                                                                           |
| 8                                                                               | ..                                             | .. | .. | Urban District of Halstead.<br>Rural District of Halstead.                                                                          |
| 9                                                                               | ..                                             | .. | .. | Borough of Saffron Walden.<br>Rural District of Saffron Walden.                                                                     |
| 10                                                                              | ..                                             | .. | .. | Urban District of Epping.<br>Rural District of Epping.                                                                              |
| 11                                                                              | ..                                             | .. | .. | Rural District of Ongar.<br>Urban District of Chingford.<br>Urban District of Chigwell.<br>Urban District of Waltham Holy<br>Cross. |
| 12                                                                              | ..                                             | .. | .. | Urban District of Wanstead and<br>Woodford.                                                                                         |
| 13                                                                              | ..                                             | .. | .. | Urban District of Billericay.<br>Urban District of Brentwood.                                                                       |
| 14                                                                              | ..                                             | .. | .. | Urban District of Grays Thurrock.<br>Urban District of Purfleet.<br>Urban District of Tilbury.<br>Rural District of Orsett.         |
| 15                                                                              | ..                                             | .. | .. | Urban District of Benfleet.<br>Urban District of Canvey Island.<br>Urban District of Rayleigh.<br>Rural District of Rochford.       |

It is interesting to note that in all the County Districts, except the Boroughs of Harwich and Maldon, the Urban Districts of Billericay, Chigwell, Epping and Wanstead & Woodford, and the Rural Districts of Epping and Ongar, the Medical Officers of Health are not also engaged in private practice as medical practitioners.

In the Memorandum L.G.A.41, dated January, 1931, the Ministry of Health point out the Councils of County Districts will no doubt, in filling vacancies, usually conform to the arrangements formulated by the County Council.

### ISOLATION HOSPITALS.

Table V on page 32a records the number of beds, number of cases treated, &c., at 15 Hospitals (an increase of one—Braintree) to which grants at the rate of £5 per bed and £10 for motor ambulance were made by the County Council for beds provided out of loan. The amount of these grants totalled £3,360. The average cost per patient treated decreased from £29 10s. 10d. in 1932-3 to £22 6s. 9d. in 1933-34. During the year a final special grant of £100 was made to Walthamstow in accordance with Clause 1 (c) of the County Council's scheme. A special grant of £20 was also made to the Orsett Joint Hospital Board towards the cost of the new ambulance provided for smallpox purposes.

Grants at the rate of £2 10s. per bed for beds provided out of revenue were also made to Colchester (40 beds), Dunmow (4 beds), Halstead (4 beds) and Orsett (48 beds).



A grant of £10 was made to the Borough of Leyton for the motor ambulance provided at the Leyton Isolation Hospital.

The scheme for securing the provision of suitable means for the proper isolation and treatment of persons suffering from infectious disease as required by Section 63 of the Local Government Act, 1929, was completed during the year and approved by the County Council on 20th November, 1934. By letter, dated 26th June, 1935, the Ministry of Health stated that "after considering the Scheme and representations regarding it which have been made by various Local Authorities in the County, the Minister has approved of the Scheme with modifications." A copy of the Scheme is set out below.

**Scheme for the Provision of Hospital Accommodation for the Treatment of Infectious Diseases.**

PART I.

*Infectious Diseases other than Smallpox.*

1. With a view to the provision of adequate hospital accommodation for the treatment of Infectious Diseases other than Smallpox in the County of Essex, the Administrative County shall be divided into areas consisting of the County District or Districts specified in the second column of the subjoined table, and there shall be provided for each such area not less accommodation than that specified in the third column and placed opposite to the number and description of the area.

| (1.)         | (2.)                                                                                                                                                                                                                                     | (3.)                                   |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| No. of Area. | County Districts comprised in Area.                                                                                                                                                                                                      | Minimum number of beds to be provided. |
| 1            | .. Borough of Barking .. ..                                                                                                                                                                                                              | 76                                     |
| 2            | .. Urban District of Benfleet .. ..<br>Urban District of Billericay<br>Urban District of Brentwood<br>Urban District of Canvey Island<br>Urban District of Rayleigh<br>Rural District of Rochford                                        | 59                                     |
| 3            | .. Borough of Saffron Walden .. ..<br>Urban District of Braintree and Bocking<br>Urban District of Halstead<br>Rural District of Braintree<br>Rural District of Dunmow<br>Rural District of Halstead<br>Rural District of Saffron Walden | 68                                     |
| 4            | .. Borough of Chelmsford .. ..<br>Borough of Maldon<br>Urban District of Burnham-on-Crouch<br>Urban District of Witham<br>Rural District of Chelmsford<br>Rural District of Maldon<br>Rural District of Ongar                            | 77                                     |
| 5            | .. Borough of Colchester .. ..<br>Borough of Harwich<br>Urban District of Brightlingsea<br>Urban District of Clacton                                                                                                                     | 130                                    |



| (1.)         | (2.)                                    | (3.)                                   |
|--------------|-----------------------------------------|----------------------------------------|
| No. of Area. | County Districts comprised in Area.     | Minimum number of beds to be provided. |
|              | Urban District of Frinton and Walton    |                                        |
|              | Urban District of West Mersea           |                                        |
|              | Urban District of Wivenhoe              |                                        |
|              | Rural District of Lexden and Winstree   |                                        |
|              | Rural District of Tendring              |                                        |
| 6 ..         | Borough of Ilford .. ..                 | 145                                    |
| 7 ..         | Urban District of Grays Thurrock .. ..  | 70                                     |
|              | Urban District of Purfleet              |                                        |
|              | Urban District of Tilbury               |                                        |
|              | Rural District of Orsett                |                                        |
| 8 ..         | Urban District of Dagenham .. ..        | 215                                    |
|              | Urban District of Hornchurch            |                                        |
|              | Urban District of Romford               |                                        |
| 9 ..         | Urban District of Chingford .. ..       | 120                                    |
|              | Urban District of Chigwell              |                                        |
|              | Urban District of Epping                |                                        |
|              | Urban District of Wanstead and Woodford |                                        |
|              | Urban District of Waltham Holy Cross    |                                        |
|              | Rural District of Epping                |                                        |
| 10 ..        | Borough of Leyton .. ..                 | 261                                    |
|              | Borough of Walthamstow                  |                                        |

2. In respect of areas numbered 1, 6, 7 and 8 in Clause 1 of this scheme, the accommodation rendered necessary by the provisions of this Scheme shall be provided by the Corporation of Barking, the Corporation of Ilford, the Orsett Joint Hospital Board and the Romford Joint Hospital Board, respectively.

3. In respect of areas numbered 3, 4 and 9 in Clause 1 of this scheme, the Joint Hospital Boards and Local Authorities within those respective areas shall, as soon as may be, initiate action and carry through any proceedings that may be necessary on their part for altering the constitution of existing United Districts or revoking Orders constituting such United Districts as may be required pursuant to the provisions of Sections 279 and 297 of the Public Health Act, 1875, with a view to the formation of a Joint Hospital Board for each such area or for combining pursuant to the provisions of Section 131 of the Public Health Act, 1875. The accommodation rendered necessary for the respective areas by the provisions of this Scheme shall be provided by the Joint Hospital Boards or combination of Local Authorities constituted in pursuance of this clause.

4. In respect of areas 2 and 10 in Clause 1 of this scheme, the Local Authorities of the districts comprised within the respective areas shall, as soon as may be, initiate action and carry through any proceedings that may be necessary on their part for forming United Districts as may be required pursuant to the provisions of Sections 279 and 297 of the Public Health Act, 1875, with a view to the formation of a Joint Hospital Board for each area or for combining pursuant to the provisions of Section 131 of the Public Health Act, 1875. The accommodation rendered necessary for these areas by the provisions of this Scheme shall be provided by the Joint Hospital Boards or combination of Local Authorities constituted in pursuance of this clause.

5. The Hospital at Colchester provided by the Corporation of Colchester for the treatment of Infectious Diseases other than Smallpox shall be made available for the districts comprised in the area numbered 5 in Clause 1 of this scheme, and agreements in pursuance of Section 131 of the Public Health Act, 1875, shall be entered into accordingly between the Corporation and the Councils of districts in the area who are not at present entitled to use the Hospital.



## PART II.

*Smallpox*

6. The County Council shall provide accommodation for the treatment of cases of Smallpox occurring in the Administrative County, exclusive of the Borough of Colchester. The expenses incurred by the County Council in this connection shall be defrayed as special expenses of that part of the Administrative County concerned.

7. The Corporation of Colchester shall provide hospital accommodation comprising not less than 24 beds, which shall be available for the treatment of cases of Smallpox occurring in the Borough of Colchester, such accommodation shall also be made available for the treatment of cases occurring elsewhere in the Administrative County, in accordance with the terms of an agreement for that purpose to be entered into between the Corporation and the County Council.

## PART III.

*General.*

8. Any agreement made in pursuance of this scheme under Section 131 of the Public Health Act, 1875, shall comprise such terms as may be agreed between the authorities concerned and in particular may provide for the payment of a capital sum to the Local Authority maintaining the Hospital by the Local Authority from whose district patients are to be received into the hospital, and every such agreement shall provide for the payment of such other sum by way of annual retaining fee and weekly payments for the maintenance and treatment of patients in the hospital as may be agreed between the parties thereto, or, in default of agreement, such terms as may be determined by a single arbitrator appointed under and subject to the provisions of the Arbitration Act, 1889, or any statutory re-enactment or modification of the same for the time being in force.

9. Every Authority maintaining a hospital to which, in accordance with the provisions of this scheme, patients resident in a district comprised in any area designated in Clause 1 of this scheme other than the district for which the hospital was provided are to be admitted shall, at the request of the Medical Officer of Health for the district in which the patient is resident, admit such patients so far as the accommodation available permits.

10. Every Authority providing a hospital to which this scheme applies shall, if in the opinion of the County Medical Officer of Health circumstances so require and accommodation is available, admit patients from other areas within the County from which they are not under the foregoing provisions of this scheme required to receive patients on such terms as may be agreed between the Authorities concerned, or, in default of agreement, determined by a single arbitrator, subject to the provisions of the Arbitration Act, 1889, or any statutory re-enactment or modification of the same for the time being in force.

The purpose of this scheme was to determine in what manner the powers already possessed by the County Council and other Authorities may best be utilised so as to secure provision of adequate hospital accommodation without overlapping. Its preparation entailed much detailed investigatory work, including visits to all the Isolation Hospitals by members of the Special Sub-Committee, after which the whole position was reviewed and considered with the care and forethought which such an important subject required. At that time there were twenty Isolation Hospitals and seven Smallpox Hospitals serving the Sanitary Districts in the Administrative County of Essex. The number of beds provided at the former ranging from twelve to one hundred and thirty-seven, and at the latter from four to twenty-six. In formulating the scheme, regard was had to the fact that experience had shown that a large hospital serving a wide area forms a more satisfactory administrative unit than a number of small hospitals serving smaller areas, and with modern means of transport the removal of patients to a hospital situated at some distance from their homes presents little difficulty.



TABLE V.

Showing 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, 1934.

|                                  | Billerica. | Braintree. | Chelmsford. | Clacton.   | Colchester. | Dunmow.  | Grays and Orsett. | Halstead. | Ilford.     | Maldon.  | Rochford. | Romford.   | Saffron Walden. | Walthamstow. | Waltham Joint. | TOTAL.      |
|----------------------------------|------------|------------|-------------|------------|-------------|----------|-------------------|-----------|-------------|----------|-----------|------------|-----------------|--------------|----------------|-------------|
| Number for purpose of Grant      | 30         | 14         | 21          | 17         | 58          | 8        | 40                | 16        | 110         | 10       | 12        | 141        | 14              | 81           | 42             | 600         |
| Grant from County Council        | £170       | £80        | £115        | £85        | £300        | £50      | £230(i)           | £50       | £560        | £60      | £70       | £715       | £80             | £525(i)      | £230           | £3300       |
| Cases treated during year:—      |            |            |             |            |             |          |                   |           |             |          |           |            |                 |              |                |             |
| Diphtheria                       | 119        | 8          | 13          | 6          | 22          | 2        | 131               | 2         | 135         | 12       | 71        | 334        | 3               | 311          | 43             | 1212        |
| Scarlet Fever                    | 277        | 46         | 137         | 36         | 287         | 63       | 247               | 115       | 357         | 72       | 182       | 927        | 26              | 551          | 185            | 3448        |
| Typhoid                          | 2          | 2          | ...         | ...        | 6           | ...      | 3                 | ...       | ...         | 3        | ...       | ...        | ...             | ...          | 6              | 22          |
| Other Diseases                   | 47         | 5          | 4           | 1          | *124        | 1        | 22                | 8         | *86         | 3        | 6         | 130        | 2               | 18           | ...            | 457         |
| Total number of cases treated    | 445        | 61         | 154         | 43         | 409         | 66       | 403               | 125       | 578         | 90       | 229       | 1391       | 31              | 889          | 234            | 5139        |
| Bed-Days                         | 11970      | 2318       | 4004        | 1962       | 19570       | 2700     | 15673             | 2062      | 29033       | 2747     | 7676      | 50689      | 1132            | 29339        | 9720           | 191086      |
| Expenditure for the year:—       | £ 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.        | £ s. d.     |
| Repayment of Loans...            | 375 11 6   | ...        | 270 16 8    | 90 19 11   | 250 3 3     | ...      | 725 7 5           | 64 0 0    | 2023 16 9   | 43 9 2   | 50 1 8    | 2460 7 7   | 108 0 0         | 564 0 0      | 199 13 4       | 7226 7 3    |
| Interest on loan                 | 433 17 4   | ...        | 29 14 9     | 2 14 0     | 135 3 2     | ...      | 790 13 0          | 33 16 5   | 1565 13 6   | 13 15 9  | 24 10 4   | 4665 16 8  | 48 13 3         | 451 0 0      | 20 5 5         | 8127 15 7   |
| Total                            | £ 809 8 10 | ...        | 300 11 5    | 93 13 11   | 385 6 5     | ...      | 1426 0 5          | 99 16 5   | 3589 10 3   | 57 4 11  | 74 12 0   | 7126 4 3   | 156 15 3        | 1015 0 0     | 219 18 9       | 13351 2 10  |
| Structural Repairs               | 478 0 8    | 556 14 8   | 173 5 9     | 37 7 4     | 379 9 1     | 56 9 4   | 456 7 2           | 28 11 5   | 1802 6 8    | 83 11 3  | 70 17 6   | 1640 17 11 | 69 4 5          | 1295 0 0     | 202 10 5       | 7330 13 7   |
| Food (Patients and Staff)        | 2209 13 8  | 554 14 2   | 509 4 5     | 221 0 6    | 1126 5 2    | 134 4 4  | 1788 5 7          | 332 8 10  | 3556 15 8   | 476 8 0  | 1328 5 2  | 5620 19 9  | 168 3 8         | 4571 0 0     | 705 16 9       | 22764 5 8   |
| Estab. and Patients' Expenses    | 2006 1 0   | 1256 5 8   | 1322 8 8    | 861 13 2   | 5379 0 6    | 913 9 11 | 4417 12 8         | 1565 7 5  | 14505 11 11 | 1409 1 3 | 1248 14 4 | 17503 0 1  | 466 17 11       | 12216 0 0    | 4124 12 8      | 69345 17 2  |
| Maintenance...                   | 4693 15 4  | 2367 14 6  | 2045 18 10  | 1120 1 0   | 6884 14 9   | 1104 3 7 | 6662 5 5          | 1946 7 8  | 19954 14 3  | 2029 0 6 | 2647 17 0 | 24164 17 9 | 704 6 0         | 18082 0 0    | 5032 19 10     | 59440 16 5  |
| Overhead Charges                 | 809 8 10   | ...        | 300 11 5    | 93 13 11   | 385 6 5     | ...      | 1426 0 5          | 99 16 5   | 3589 10 3   | 57 4 11  | 74 12 0   | 7126 4 3   | 156 15 3        | 1015 0 0     | 219 18 9       | 13351 2 10  |
| Total                            | £ 5563 4 2 | 2367 14 6  | 2346 10 3   | 1213 14 11 | 7270 1 2    | 1104 3 7 | 8088 5 10         | 2046 4 1  | 23644 4 6   | 2086 5 5 | 2722 9 0  | 31291 2 0  | 861 1 3         | 19697 0 0    | 3252 18 7      | 114794 19 3 |
| Cost per patient per week        | £ 3 4 4    | 7 3 0      | 4 2 1       | 4 6 7      | 2 12 0      | 2 17 3   | 3 15 1            | 4 16 8    | 5 13 6      | 5 6 4    | 2 9 8     | 4 6 5      | 5 6 6           | 4 10 6       | 3 15 8         | 4 4 2       |
| " " Food, Struct. and Estab. Ex. | £ 2 14 10  | 7 3 0      | 3 11 6      | 3 19 11    | 2 9 3       | 2 17 3   | 3 1 2             | 4 12 0    | 4 16 2      | 5 3 5    | 2 8 3     | 3 6 9      | 4 7 1           | 4 5 8        | 3 12 6         | 3 12 10     |
| Cost per case treated, 1933-34   | £ 12 7 4   | 38 16 4    | 18 4 9      | 28 4 6     | 17 15 6     | 16 14 7  | 20 1 5            | 16 7 4½   | 40 14 8     | 23 3 7   | 11 17 9   | 22 9 11    | 27 15 6         | 21 14 1      | 22 8 11        | 22 6 9      |
| " " year 1932-33                 | £ 24 16 1  | ...        | 10 4 1      | 46 19 1    | 24 3 8      | 24 6 0   | 53 2 7            | 118 13 2  | 45 10 9     | 30 1 7   | 11 10 7   | 32 8 3     | 33 18 2         | 23 4 11      | 22 13 0        | 29 10 10    |

\* Includes Tuberculosis cases treated under the County Council scheme.

(i) Includes Special Grant.

Summary of the results of the investigation

| No. | Name              | Age | Sex | Occupation | Marital Status | Religion   | Education   | Income   | Assets   | Liabilities | Net Worth | Comments |
|-----|-------------------|-----|-----|------------|----------------|------------|-------------|----------|----------|-------------|-----------|----------|
|     |                   |     |     |            |                |            |             |          |          |             |           |          |
| 1   | John Doe          | 35  | M   | Teacher    | Married        | Protestant | High School | \$12,000 | \$15,000 | \$5,000     | \$10,000  |          |
| 2   | Jane Smith        | 28  | F   | Nurse      | Single         | Catholic   | College     | \$8,000  | \$10,000 | \$2,000     | \$8,000   |          |
| 3   | Robert Brown      | 45  | M   | Engineer   | Married        | Jewish     | University  | \$20,000 | \$25,000 | \$10,000    | \$15,000  |          |
| 4   | Mary White        | 55  | F   | Homemaker  | Married        | Methodist  | High School | \$6,000  | \$8,000  | \$3,000     | \$5,000   |          |
| 5   | William Black     | 30  | M   | Doctor     | Single         | Anglican   | University  | \$18,000 | \$20,000 | \$8,000     | \$12,000  |          |
| 6   | Elizabeth Green   | 40  | F   | Lawyer     | Married        | Buddhist   | College     | \$15,000 | \$18,000 | \$7,000     | \$11,000  |          |
| 7   | James Hall        | 25  | M   | Student    | Single         | Muslim     | University  | \$4,000  | \$5,000  | \$1,000     | \$4,000   |          |
| 8   | Sarah King        | 60  | F   | Retired    | Married        | Hindu      | High School | \$3,000  | \$4,000  | \$1,000     | \$3,000   |          |
| 9   | Michael Lee       | 38  | M   | Artist     | Single         | Sikh       | College     | \$7,000  | \$9,000  | \$2,000     | \$7,000   |          |
| 10  | Patricia Miller   | 50  | F   | Manager    | Married        | Christian  | University  | \$11,000 | \$13,000 | \$6,000     | \$7,000   |          |
| 11  | David Wilson      | 22  | M   | Student    | Single         | Buddhist   | University  | \$2,000  | \$3,000  | \$500       | \$2,500   |          |
| 12  | Linda Young       | 48  | F   | Teacher    | Married        | Protestant | High School | \$9,000  | \$11,000 | \$4,000     | \$7,000   |          |
| 13  | Richard Taylor    | 33  | M   | Engineer   | Single         | Jewish     | University  | \$14,000 | \$16,000 | \$7,000     | \$9,000   |          |
| 14  | Barbara Evans     | 58  | F   | Retired    | Married        | Catholic   | High School | \$5,000  | \$6,000  | \$2,000     | \$4,000   |          |
| 15  | Christopher Scott | 27  | M   | Student    | Single         | Muslim     | University  | \$3,000  | \$4,000  | \$1,000     | \$3,000   |          |
| 16  | Angela Adams      | 42  | F   | Manager    | Married        | Christian  | College     | \$10,000 | \$12,000 | \$5,000     | \$7,000   |          |
| 17  | Benjamin Baker    | 37  | M   | Engineer   | Single         | Buddhist   | University  | \$13,000 | \$15,000 | \$6,000     | \$7,000   |          |
| 18  | Christine Clark   | 52  | F   | Retired    | Married        | Protestant | High School | \$4,000  | \$5,000  | \$1,000     | \$4,000   |          |
| 19  | Gregory Davis     | 29  | M   | Student    | Single         | Jewish     | University  | \$2,500  | \$3,500  | \$800       | \$2,700   |          |
| 20  | Helen Edwards     | 47  | F   | Teacher    | Married        | Catholic   | High School | \$8,500  | \$10,500 | \$3,500     | \$7,000   |          |
| 21  | Isaac Fennell     | 32  | M   | Engineer   | Single         | Anglican   | University  | \$12,500 | \$14,500 | \$5,500     | \$7,000   |          |
| 22  | Julia Gale        | 57  | F   | Retired    | Married        | Buddhist   | High School | \$3,500  | \$4,500  | \$1,500     | \$3,000   |          |
| 23  | Kenneth Harris    | 24  | M   | Student    | Single         | Muslim     | University  | \$1,500  | \$2,500  | \$400       | \$2,100   |          |
| 24  | Lillian Ives      | 44  | F   | Manager    | Married        | Christian  | College     | \$9,500  | \$11,500 | \$4,500     | \$7,000   |          |
| 25  | Norman Jones      | 39  | M   | Engineer   | Single         | Jewish     | University  | \$13,500 | \$15,500 | \$6,500     | \$7,000   |          |
| 26  | Olivia Keith      | 54  | F   | Retired    | Married        | Catholic   | High School | \$4,500  | \$5,500  | \$1,500     | \$4,000   |          |
| 27  | Philip Lester     | 26  | M   | Student    | Single         | Anglican   | University  | \$2,200  | \$3,200  | \$700       | \$2,500   |          |
| 28  | Rebecca Martin    | 49  | F   | Teacher    | Married        | Buddhist   | High School | \$8,200  | \$10,200 | \$3,200     | \$7,000   |          |
| 29  | Samuel Nash       | 34  | M   | Engineer   | Single         | Protestant | University  | \$12,200 | \$14,200 | \$5,200     | \$7,000   |          |
| 30  | Teresa Owen       | 59  | F   | Retired    | Married        | Catholic   | High School | \$3,200  | \$4,200  | \$1,200     | \$3,000   |          |
| 31  | Ulysses Parker    | 23  | M   | Student    | Single         | Anglican   | University  | \$1,200  | \$2,200  | \$300       | \$1,900   |          |
| 32  | Victoria Quinn    | 43  | F   | Manager    | Married        | Buddhist   | College     | \$10,200 | \$12,200 | \$4,200     | \$6,000   |          |
| 33  | Walter Reed       | 38  | M   | Engineer   | Single         | Jewish     | University  | \$13,200 | \$15,200 | \$6,200     | \$7,000   |          |
| 34  | Xenia Stone       | 53  | F   | Retired    | Married        | Catholic   | High School | \$4,200  | \$5,200  | \$1,200     | \$4,000   |          |
| 35  | Yvonne Tate       | 28  | F   | Student    | Single         | Anglican   | University  | \$2,800  | \$3,800  | \$600       | \$3,200   |          |
| 36  | Zachary Vance     | 48  | M   | Teacher    | Married        | Buddhist   | High School | \$8,800  | \$10,800 | \$3,800     | \$7,000   |          |
| 37  | Adrian Webb       | 33  | M   | Engineer   | Single         | Protestant | University  | \$12,800 | \$14,800 | \$5,800     | \$7,000   |          |
| 38  | Bonnie Wright     | 58  | F   | Retired    | Married        | Catholic   | High School | \$3,800  | \$4,800  | \$1,800     | \$3,000   |          |
| 39  | Carl Young        | 25  | M   | Student    | Single         | Anglican   | University  | \$1,800  | \$2,800  | \$500       | \$2,300   |          |
| 40  | Dorothy Zane      | 45  | F   | Manager    | Married        | Buddhist   | College     | \$9,800  | \$11,800 | \$4,800     | \$7,000   |          |



It was necessary to defer the completion of the scheme until the Sanitary Districts in the Administrative County had been re-organised under Section 46 of the Local Government Act, 1929. The scheme now approved by the Ministry of Health reduces the number of Hospital Authorities or Joint Hospital Boards from twenty to ten for providing accommodation for the treatment of ordinary infectious diseases. This should secure a more adequate service for the whole of the County.

In respect to accommodation for the treatment of Smallpox, the scheme has reduced the number of Hospital Authorities or Joint Hospital Boards from seven to two, and the responsibility for providing accommodation for the treatment of Smallpox is vested in the Essex County Council and the Colchester Borough. The latter Authority is providing under agreement with the Essex County Council, a new Smallpox Hospital at Colchester which is now in course of erection, to provide not less than twenty-four beds. It is hoped that this Hospital will be completed by the end of 1935 and meanwhile, patients will be sent to the Orsett Smallpox Hospital or to one of the smallpox Hospitals provided by the London County Council. Further negotiations are in progress with the London County Council to obtain a written agreement under which Essex can continue to send patients to one of the Hospitals provided by the London County Council.

### HOUSING.

Table VI on page 33a gives particulars of the work carried out under the Public Health and Housing Acts by the Local Sanitary Authorities during the year 1934. The principal items included in that table are compared below with the figures for the year 1933 :—

|                                                                                              | 1933.  | 1934.  |
|----------------------------------------------------------------------------------------------|--------|--------|
| No. of new houses erected .. .. .                                                            | 14,836 | 14,674 |
| No. of houses inspected for housing defects .. .. .                                          | 37,006 | 35,874 |
| No. of inspections made for the purpose .. .. .                                              | 93,175 | 88,851 |
| No. of houses found to be totally unfit for human habitation                                 | 1,306  | 801    |
| No. of houses found not to be in all respects reasonably fit<br>for human habitation .. .. . | 16,295 | 14,806 |
| No. of houses rendered fit in consequence of informal action                                 | 12,973 | 12,951 |

### RURAL DISTRICT COUNCILS.

(a) *Returns.* As required by the Housing Act, 1930, each Rural District Council furnished their fourth return (for the year 1933) in regard to housing conditions of persons of the working classes. A summary of these returns is given in Table VII on page 33b. The figures indicate increasing housing activities in all the Rural Districts. Further conferences between officers of the County Council and of 8 Rural District Councils were held during the year, resulting in appropriate representations being made. Assistance has also been rendered in both urban and rural areas in connection with inspections of clearance areas.



(b) *Grants.* The Public Health and Housing Committee reviewed the conditions under which grants can be made to Rural District Councils under Sub-sections (2) and (3) of Section 34 of the Housing Act, 1930. It was felt that some definite incentive to Rural District Councils should be provided to encourage them to provide necessary houses, particularly to remedy overcrowding and to meet normal expansion. In the first place, all applications which had been received were reconsidered and subject to the usual conditions it was decided under Sub-section (3) to make a grant of £1 per house per annum for forty years in respect of so many of the houses referred to in the undermentioned applications as are in each of those years occupied for a period or periods exceeding nine months by members of the agricultural population :—

| District Council.                 | Date of Application. | No. of houses. |
|-----------------------------------|----------------------|----------------|
| Halstead R. (former Belchamp R.)  | .. November, 1930    | .. 14          |
|                                   | January, 1931        | .. 16          |
| Halstead R. (former Bumpstead R.) | .. November, 1931    | .. 14          |
| Epping R. .. ..                   | .. September, 1933   | .. 12          |
| Orsett R. .. ..                   | .. September, 1934   | .. 8           |

Secondly, on 1st January, 1935, the County Council considered a report from the Public Health and Housing Committee on the question of the provision of houses by District Councils in Rural Districts to be let at rents within the means of the rural population. They resolved to make "upon conditions to be approved by the Public Health and Housing Committee, in the case of a scheme in which no contribution is received from the Minister of Health under Section 26 of the Housing Act, 1930, such grant as may be necessary to provide houses which can be let at rents which persons of the class for which the houses are provided can reasonably be expected to pay up to a maximum grant of £2 10s. per house per annum for a period of forty years, subject to the District Council contributing a similar amount, the County Council's grant to include any contributions payable under Sub-sections (2) and (3) of Section 34 of the Housing Act, 1930, such grant, however, to be subject to revision should the present position be varied by new legislation."

Subsequently, the Public Health and Housing Committee decided that it was desirable to hold a further conference with the Rural District Councils, but that the summoning of such a conference should be deferred until the Housing Bill, 1935, had received Royal assent.

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

The information given below has again been kindly supplied by the County Lands Agent.

During the year 1934-91 Forms of Application were received, applying for Grants in respect of 206 Cottages.

The Districts in which the Cottages are situate are as under :—



TABLE VI.

SHOWING PARTICULARS OF WORK CARRIED OUT BY LOCAL SANITARY AUTHORITIES UNDER THE PUBLIC HEALTH AND HOUSING ACTS DURING THE YEAR 1934.

| SANITARY DISTRICT.              | NEW HOUSES ERRECTED DURING 1934. |                      |                          | INSPECTION OF DWELLING HOUSES DURING THE YEAR.                          |                                                 |                                                                                                                            |                                                 |                                                                                                            |                                                                                                |                                                                                                                           | ACTION UNDER STATUTORY POWERS.                                     |                                                                                                  |                                       |                                          |                                                                                        |            |                                                    |                                                                                |                                                                                               |                                                                                               |
|---------------------------------|----------------------------------|----------------------|--------------------------|-------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------|------------|----------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                 | Total.                           | By                   |                          | (a)<br>Total No. of Houses inspected for Public Health or Housing Acts. | (b)<br>No. of Inspections made for the purpose. | (c)<br>No. of Dwelling-houses checked under sub-head (a) which were inspected and recorded under Consolidated Regs., 1925. | (d)<br>No. of Inspections made for the purpose. | (e)<br>No. found to be in a state so dangerous or injurious to health as to be unfit for human habitation. | (f)<br>No. requiring these referred to be in all respects reasonably fit for human habitation. | No. of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers. | PROCEEDINGS UNDER SECTIONS 17, 18 AND 23 OF THE HOUSING ACT, 1930. |                                                                                                  | PROCEEDINGS UNDER PUBLIC HEALTH ACTS. |                                          | PROCEEDINGS UNDER SECTIONS 19 & 21 OF HOUSING ACT, 1930.                               |            | PROCEEDINGS UNDER SECTION 20 OF HOUSING ACT, 1930. |                                                                                |                                                                                               |                                                                                               |
|                                 |                                  | The Local Authority. | Other Local Authorities. |                                                                         |                                                 |                                                                                                                            |                                                 |                                                                                                            |                                                                                                |                                                                                                                           | Other Bodies or Persons.                                           | No. of Dwelling Houses in respect of which Notices were served requiring defects to be remedied. | By Owners.                            | By Local Authority in default of Owners. | No. of Dwelling Houses in which defects were remedied after service of formal Notices. | By Owners. | By Local Authority in default of Owners.           | No. of Dwelling Houses demolished in pursuance of Demolition Orders were made. | No. of separate Tenements or Under-ground Rooms in respect of which Closing Orders were made. | No. of separate Tenements or Under-ground Rooms in respect of which Closing Orders were made. |
| URBAN.                          |                                  |                      |                          |                                                                         |                                                 |                                                                                                                            |                                                 |                                                                                                            |                                                                                                |                                                                                                                           |                                                                    |                                                                                                  |                                       |                                          |                                                                                        |            |                                                    |                                                                                |                                                                                               |                                                                                               |
| BARKING B.                      | 730                              | 96                   | 275                      | 359                                                                     | 3323                                            | 9583                                                                                                                       | 841                                             | 2304                                                                                                       | 79                                                                                             | 1730                                                                                                                      | 1392                                                               | 134                                                                                              | 109                                   | 170                                      | 140                                                                                    | 1          | 3                                                  | 6                                                                              | ..                                                                                            | ..                                                                                            |
| BENTLEY                         | 258                              | ..                   | ..                       | 258                                                                     | 146                                             | 146                                                                                                                        | 109                                             | 109                                                                                                        | 3                                                                                              | 89                                                                                                                        | 80                                                                 | 3                                                                                                | 2                                     | 38                                       | 35                                                                                     | 3          | 6                                                  | 6                                                                              | ..                                                                                            | ..                                                                                            |
| BELLINGHAM                      | 390                              | ..                   | ..                       | 390                                                                     | 1450                                            | 1726                                                                                                                       | 402                                             | 463                                                                                                        | 20                                                                                             | 143                                                                                                                       | 8                                                                  | 69                                                                                               | 54                                    | 224                                      | 207                                                                                    | ..         | 5                                                  | 5                                                                              | ..                                                                                            | ..                                                                                            |
| BRAINTREE & BUCKING             | 63                               | ..                   | ..                       | 63                                                                      | 249                                             | 747                                                                                                                        | 125                                             | 375                                                                                                        | 29                                                                                             | 31                                                                                                                        | 54                                                                 | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | ..                                                 | 1                                                                              | ..                                                                                            | ..                                                                                            |
| BRENTWOOD                       | 206                              | ..                   | ..                       | 206                                                                     | 305                                             | 543                                                                                                                        | 82                                              | 187                                                                                                        | ..                                                                                             | 25                                                                                                                        | 12                                                                 | 2                                                                                                | ..                                    | ..                                       | ..                                                                                     | ..         | 9                                                  | 9                                                                              | ..                                                                                            | ..                                                                                            |
| BRIGHTLINGDALE                  | 31                               | ..                   | ..                       | 31                                                                      | 34                                              | 48                                                                                                                         | 48                                              | 45                                                                                                         | ..                                                                                             | 41                                                                                                                        | 68                                                                 | ..                                                                                               | ..                                    | 3                                        | 3                                                                                      | ..         | ..                                                 | 1                                                                              | ..                                                                                            | ..                                                                                            |
| BURNHAM-ON-CROUCH               | 7                                | ..                   | ..                       | 7                                                                       | 130                                             | 200                                                                                                                        | 130                                             | 200                                                                                                        | 13                                                                                             | ..                                                                                                                        | 22                                                                 | ..                                                                                               | ..                                    | 1                                        | 1                                                                                      | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| CANVEY ISLAND                   | 250                              | ..                   | ..                       | 250                                                                     | 126                                             | 305                                                                                                                        | 97                                              | 258                                                                                                        | 40                                                                                             | 21                                                                                                                        | 12                                                                 | 6                                                                                                | 8                                     | 19                                       | 15                                                                                     | ..         | 13                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| CHELSEA B.                      | 156                              | ..                   | ..                       | 156                                                                     | 1154                                            | 1785                                                                                                                       | 306                                             | 378                                                                                                        | 18                                                                                             | 35                                                                                                                        | 16                                                                 | ..                                                                                               | ..                                    | 325                                      | 280                                                                                    | ..         | 5                                                  | 1                                                                              | ..                                                                                            | ..                                                                                            |
| CHISWELL                        | 421                              | ..                   | ..                       | 420                                                                     | 127                                             | 429                                                                                                                        | 66                                              | 251                                                                                                        | ..                                                                                             | 61                                                                                                                        | 114                                                                | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | 1                                                  | 1                                                                              | ..                                                                                            | ..                                                                                            |
| CHINGFORD                       | 514                              | ..                   | ..                       | 514                                                                     | 1189                                            | 3257                                                                                                                       | 80                                              | 855                                                                                                        | 4                                                                                              | 73                                                                                                                        | 505                                                                | 12                                                                                               | 11                                    | 2                                        | 3                                                                                      | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| CLAYTON-ON-SEA                  | 675                              | ..                   | ..                       | 675                                                                     | 597                                             | 911                                                                                                                        | 79                                              | 358                                                                                                        | 5                                                                                              | 167                                                                                                                       | 50                                                                 | ..                                                                                               | ..                                    | 15                                       | 15                                                                                     | ..         | 3                                                  | 2                                                                              | ..                                                                                            | ..                                                                                            |
| COLCHESTER B.                   | 422                              | 66                   | ..                       | 356                                                                     | 760                                             | 1934                                                                                                                       | 188                                             | 481                                                                                                        | 95                                                                                             | 292                                                                                                                       | 348                                                                | 1                                                                                                | 2                                     | 432                                      | 312                                                                                    | ..         | 7                                                  | 5                                                                              | ..                                                                                            | ..                                                                                            |
| DAVENHAM                        | 1061                             | 66                   | 26                       | 969                                                                     | 2025                                            | 5702                                                                                                                       | 1606                                            | 3815                                                                                                       | 1                                                                                              | 7                                                                                                                         | ..                                                                 | ..                                                                                               | ..                                    | 40                                       | 35                                                                                     | 4          | 57                                                 | 27                                                                             | ..                                                                                            | ..                                                                                            |
| EPFING                          | 51                               | 8                    | ..                       | 43                                                                      | 63                                              | 135                                                                                                                        | 31                                              | 72                                                                                                         | 2                                                                                              | 7                                                                                                                         | 51                                                                 | 7                                                                                                | 7                                     | ..                                       | ..                                                                                     | ..         | 6                                                  | 6                                                                              | ..                                                                                            | ..                                                                                            |
| FRINTON & WALTON                | 53                               | ..                   | ..                       | 53                                                                      | 17                                              | 26                                                                                                                         | 17                                              | 26                                                                                                         | ..                                                                                             | ..                                                                                                                        | ..                                                                 | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| GRAYS                           | 175                              | 26                   | ..                       | 149                                                                     | 384                                             | 1642                                                                                                                       | 238                                             | 238                                                                                                        | ..                                                                                             | 451                                                                                                                       | 451                                                                | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| HALSTAD                         | 30                               | 20                   | ..                       | 10                                                                      | 299                                             | 672                                                                                                                        | 68                                              | 68                                                                                                         | 64                                                                                             | 231                                                                                                                       | 144                                                                | 85                                                                                               | 73                                    | ..                                       | ..                                                                                     | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| HARWICH B.                      | 79                               | ..                   | ..                       | 79                                                                      | 73                                              | 401                                                                                                                        | 6                                               | 6                                                                                                          | ..                                                                                             | 6                                                                                                                         | 58                                                                 | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | 49                                                 | 11                                                                             | 14                                                                                            | ..                                                                                            |
| HORNWICH                        | 1310                             | 6                    | ..                       | 1304                                                                    | 1902                                            | 1969                                                                                                                       | 223                                             | 569                                                                                                        | 13                                                                                             | 404                                                                                                                       | 312                                                                | ..                                                                                               | ..                                    | ..                                       | 92                                                                                     | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| ILFORD B.                       | 2467                             | ..                   | ..                       | 2467                                                                    | 1498                                            | 3427                                                                                                                       | 288                                             | 1197                                                                                                       | 11                                                                                             | 695                                                                                                                       | 655                                                                | ..                                                                                               | ..                                    | 47                                       | 45                                                                                     | ..         | 16                                                 | 4                                                                              | ..                                                                                            | ..                                                                                            |
| LEYTON B.                       | 145                              | ..                   | ..                       | 87                                                                      | 3958                                            | 12334                                                                                                                      | 1333                                            | 2820                                                                                                       | 15                                                                                             | 1633                                                                                                                      | 1666                                                               | 168                                                                                              | ..                                    | 1                                        | 1                                                                                      | ..         | 5                                                  | 5                                                                              | ..                                                                                            | ..                                                                                            |
| MALDON B.                       | 72                               | ..                   | ..                       | 72                                                                      | 257                                             | 641                                                                                                                        | 106                                             | 340                                                                                                        | 2                                                                                              | 52                                                                                                                        | 41                                                                 | 11                                                                                               | 11                                    | 63                                       | 52                                                                                     | ..         | 15                                                 | 10                                                                             | ..                                                                                            | ..                                                                                            |
| PERFLEET                        | 65                               | 30                   | ..                       | 35                                                                      | 470                                             | 1730                                                                                                                       | 314                                             | 314                                                                                                        | ..                                                                                             | 346                                                                                                                       | 338                                                                | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| RAYLEIGH                        | 92                               | ..                   | ..                       | 92                                                                      | 97                                              | 145                                                                                                                        | ..                                              | ..                                                                                                         | ..                                                                                             | 97                                                                                                                        | 8                                                                  | 35                                                                                               | 25                                    | ..                                       | ..                                                                                     | ..         | 2                                                  | 2                                                                              | ..                                                                                            | ..                                                                                            |
| ROMFORD                         | 675                              | ..                   | ..                       | 675                                                                     | 612                                             | 1542                                                                                                                       | 550                                             | 584                                                                                                        | 39                                                                                             | 534                                                                                                                       | 486                                                                | ..                                                                                               | ..                                    | 62                                       | 62                                                                                     | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| SAPPHRON WALDEN B.              | 69                               | 42                   | ..                       | 27                                                                      | 240                                             | 325                                                                                                                        | 3                                               | 9                                                                                                          | 12                                                                                             | 96                                                                                                                        | 93                                                                 | 3                                                                                                | 3                                     | 2                                        | 1                                                                                      | ..         | 33                                                 | 2                                                                              | ..                                                                                            | ..                                                                                            |
| TILFURY                         | 7                                | ..                   | ..                       | 7                                                                       | 800                                             | 2503                                                                                                                       | 349                                             | 1660                                                                                                       | ..                                                                                             | 617                                                                                                                       | 273                                                                | 166                                                                                              | 161                                   | 4                                        | 178                                                                                    | 160        | ..                                                 | 12                                                                             | ..                                                                                            | ..                                                                                            |
| WALTHAM HOLY CROSS              | 31                               | ..                   | ..                       | 31                                                                      | 262                                             | 297                                                                                                                        | 49                                              | 66                                                                                                         | ..                                                                                             | 83                                                                                                                        | 63                                                                 | 3                                                                                                | 25                                    | 2                                        | 2                                                                                      | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| WALTHAMSTOW B.                  | 756                              | 144                  | ..                       | 612                                                                     | 4579                                            | 12835                                                                                                                      | 1159                                            | 3917                                                                                                       | 80                                                                                             | 2501                                                                                                                      | 2424                                                               | 98                                                                                               | 86                                    | 1                                        | 15                                                                                     | 14         | ..                                                 | 6                                                                              | ..                                                                                            | ..                                                                                            |
| WANTSTAD AND WOODFORD           | 1250                             | ..                   | ..                       | 1250                                                                    | 997                                             | 3250                                                                                                                       | 349                                             | 1195                                                                                                       | ..                                                                                             | 672                                                                                                                       | 623                                                                | 5                                                                                                | 5                                     | ..                                       | ..                                                                                     | ..         | 3                                                  | ..                                                                             | ..                                                                                            | ..                                                                                            |
| WEST MERSEA                     | 27                               | ..                   | ..                       | 27                                                                      | 74                                              | 105                                                                                                                        | 74                                              | 74                                                                                                         | ..                                                                                             | 16                                                                                                                        | 12                                                                 | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | ..                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| WITAM                           | 25                               | ..                   | ..                       | 25                                                                      | 117                                             | 257                                                                                                                        | 13                                              | 25                                                                                                         | 20                                                                                             | 52                                                                                                                        | 39                                                                 | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | 1                                                  | 1                                                                              | ..                                                                                            | ..                                                                                            |
| WIVENHOE                        | 13                               | ..                   | ..                       | 13                                                                      | 297                                             | 501                                                                                                                        | 12                                              | 16                                                                                                         | ..                                                                                             | 29                                                                                                                        | 19                                                                 | ..                                                                                               | ..                                    | 6                                        | 6                                                                                      | ..         | 10                                                 | 10                                                                             | ..                                                                                            | ..                                                                                            |
| URBAN TOTAL                     | 12578                            | 524                  | 301                      | 11753                                                                   | 27825                                           | 72133                                                                                                                      | 9238                                            | 23275                                                                                                      | 565                                                                                            | 11798                                                                                                                     | 10845                                                              | 824                                                                                              | 764                                   | 7                                        | 1696                                                                                   | 1542       | 9                                                  | 261                                                                            | 111                                                                                           | 16                                                                                            |
| RURAL.                          |                                  |                      |                          |                                                                         |                                                 |                                                                                                                            |                                                 |                                                                                                            |                                                                                                |                                                                                                                           |                                                                    |                                                                                                  |                                       |                                          |                                                                                        |            |                                                    |                                                                                |                                                                                               |                                                                                               |
| BRAINTREE                       | 75                               | 4                    | ..                       | 71                                                                      | 637                                             | 1677                                                                                                                       | 411                                             | 411                                                                                                        | 13                                                                                             | 398                                                                                                                       | 73                                                                 | 13                                                                                               | 7                                     | 13                                       | 12                                                                                     | ..         | 139                                                | 21                                                                             | ..                                                                                            | ..                                                                                            |
| CHELSEA B.                      | 234                              | 8                    | ..                       | 246                                                                     | 265                                             | 1369                                                                                                                       | 188                                             | 527                                                                                                        | 11                                                                                             | 108                                                                                                                       | 52                                                                 | ..                                                                                               | ..                                    | 57                                       | 47                                                                                     | ..         | 18                                                 | 3                                                                              | ..                                                                                            | ..                                                                                            |
| DUNMOT                          | 80                               | 18                   | ..                       | 62                                                                      | 557                                             | 856                                                                                                                        | 418                                             | 509                                                                                                        | 6                                                                                              | 121                                                                                                                       | 60                                                                 | ..                                                                                               | ..                                    | 4                                        | 4                                                                                      | ..         | 21                                                 | ..                                                                             | ..                                                                                            | ..                                                                                            |
| EPFING                          | 171                              | ..                   | ..                       | 171                                                                     | 692                                             | 2574                                                                                                                       | 418                                             | 509                                                                                                        | 6                                                                                              | 173                                                                                                                       | 333                                                                | 1                                                                                                | 1                                     | 21                                       | 18                                                                                     | ..         | 1                                                  | ..                                                                             | ..                                                                                            | ..                                                                                            |
| HALSTAD                         | 99                               | 29                   | ..                       | 70                                                                      | 610                                             | 1194                                                                                                                       | 193                                             | 713                                                                                                        | 72                                                                                             | 151                                                                                                                       | 188                                                                | 1                                                                                                | ..                                    | 98                                       | 98                                                                                     | ..         | 45                                                 | 34                                                                             | ..                                                                                            | ..                                                                                            |
| LAKESIDE AND WIMBORNE           | 143                              | ..                   | ..                       | 143                                                                     | 1436                                            | 2730                                                                                                                       | 371                                             | 1232                                                                                                       | 33                                                                                             | 342                                                                                                                       | 236                                                                | 2                                                                                                | 2                                     | 3                                        | ..                                                                                     | ..         | 5                                                  | 5                                                                              | 1                                                                                             | ..                                                                                            |
| MALDON                          | 89                               | ..                   | ..                       | 89                                                                      | 215                                             | 1860                                                                                                                       | 165                                             | 477                                                                                                        | ..                                                                                             | 24                                                                                                                        | 580                                                                | 91                                                                                               | 69                                    | ..                                       | ..                                                                                     | ..         | 9                                                  | 9                                                                              | 1                                                                                             | ..                                                                                            |
| ONGAR                           | 206                              | 48                   | ..                       | 158                                                                     | 1290                                            | 1400                                                                                                                       | 165                                             | 477                                                                                                        | ..                                                                                             | 24                                                                                                                        | 580                                                                | 91                                                                                               | 69                                    | ..                                       | ..                                                                                     | ..         | 9                                                  | 9                                                                              | 1                                                                                             | ..                                                                                            |
| ORFORD                          | 454                              | 8                    | ..                       | 446                                                                     | 778                                             | 994                                                                                                                        | 559                                             | 639                                                                                                        | 5                                                                                              | 392                                                                                                                       | 310                                                                | 15                                                                                               | 16                                    | ..                                       | ..                                                                                     | ..         | 8                                                  | 8                                                                              | ..                                                                                            | ..                                                                                            |
| ROMFORD                         | 219                              | ..                   | ..                       | 219                                                                     | 251                                             | 595                                                                                                                        | 125                                             | 283                                                                                                        | 23                                                                                             | 19                                                                                                                        | 134                                                                | 51                                                                                               | 56                                    | 35                                       | 12                                                                                     | 22         | ..                                                 | 8                                                                              | 5                                                                                             | ..                                                                                            |
| SAPPHRON WALDEN                 | 65                               | 6                    | ..                       | 59                                                                      | 838                                             | 1692                                                                                                                       | 503                                             | 757                                                                                                        | 8                                                                                              | 48                                                                                                                        | 123                                                                | 1                                                                                                | 1                                     | 2                                        | 2                                                                                      | ..         | 17                                                 | 12                                                                             | ..                                                                                            | ..                                                                                            |
| STANSTED                        | 4                                | ..                   | ..                       | 4                                                                       | 30                                              | 31                                                                                                                         | 30                                              | 31                                                                                                         | ..                                                                                             | ..                                                                                                                        | ..                                                                 | 3                                                                                                | 1                                     | ..                                       | ..                                                                                     | ..         | 6                                                  | 4                                                                              | ..                                                                                            | ..                                                                                            |
| TENDRING                        | 121                              | ..                   | ..                       | 121                                                                     | 322                                             | 403                                                                                                                        | 322                                             | 403                                                                                                        | ..                                                                                             | 141                                                                                                                       | 128                                                                | ..                                                                                               | ..                                    | ..                                       | ..                                                                                     | ..         | 8                                                  | 11                                                                             | ..                                                                                            | ..                                                                                            |
| RURAL TOTAL                     | 2096                             | 121                  | —                        | 1975                                                                    | 8049                                            | 16718                                                                                                                      | 3861                                            | 7590                                                                                                       | 236                                                                                            | 3008                                                                                                                      | 2106                                                               | 195                                                                                              | 148                                   | 1                                        | 216                                                                                    | 210        | ..                                                 | 286                                                                            | 103                                                                                           | 3                                                                                             |
| BORO' & URBAN TOTAL             | 12578                            | 524                  | 301                      | 11753                                                                   | 27825                                           | 72133                                                                                                                      | 9238                                            | 23275                                                                                                      | 565                                                                                            | 11798                                                                                                                     | 10845                                                              | 824                                                                                              | 764                                   | 7                                        | 1696                                                                                   | 1524       | 9                                                  | 261                                                                            | 111                                                                                           | 16                                                                                            |
| TOTAL FOR ADMINISTRATIVE COUNTY | 14674                            | 645                  | 301                      | 13728                                                                   | 35874                                           | 88851                                                                                                                      | 13099                                           | 30865                                                                                                      | 801                                                                                            | 14806                                                                                                                     | 12951                                                              | 1019                                                                                             | 912                                   | 8                                        | 1912                                                                                   | 1734       | 9                                                  | 547                                                                            | 214                                                                                           | 19                                                                                            |

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TABLE VII.

33b

## SUMMARY OF RETURNS RECEIVED FROM COUNCILS OF RURAL DISTRICTS IN REGARD TO HOUSING CONDITIONS OF THE WORKING CLASSES—1934.

| RURAL DISTRICT.      | TOTALLY UNFIT HOUSES.   |             |                                                            | PARTIALLY UNFIT HOUSES. |             |                                                                    | ESTIMATED NO. OF HOUSES REQUIRED TO 31ST MARCH, 1935. |         |                           |         | PROPOSED NEW HOUSES TO 31ST MARCH, 1935. |         |                               |         |
|----------------------|-------------------------|-------------|------------------------------------------------------------|-------------------------|-------------|--------------------------------------------------------------------|-------------------------------------------------------|---------|---------------------------|---------|------------------------------------------|---------|-------------------------------|---------|
|                      | On 31st December, 1933. |             | Demolished from 1st January, 1933, to 31st December, 1933. | On 31st December, 1933. |             | Rendered habitable from 1st January, 1933, to 31st December, 1933. | To meet overcrowding.                                 |         | To meet normal expansion. |         | Approved by Minister.                    |         | Not yet approved by Minister. |         |
|                      | Occupied.               | Unoccupied. |                                                            | Occupied.               | Unoccupied. |                                                                    | Agricultural Workers.                                 | Others. | Agricultural Workers.     | Others. | Agricultural Workers.                    | Others. | Agricultural Workers.         | Others. |
| 1                    | 2                       | 3           | 4                                                          | 5                       | 6           | 7                                                                  | 8                                                     | 9       | 10                        | 11      | 12                                       | 13      | 14                            | 15      |
| Braintree (a) .. ..  | 162                     | 26          | —                                                          | 1012                    | —           | 79                                                                 | 71                                                    | —       | —                         | —       | 4                                        | —       | —                             | —       |
| Chelmsford (b) .. .. | 52                      | 3           | 14                                                         | 47                      | —           | 115                                                                | —                                                     | —       | 48                        | 56      | —                                        | —       | —                             | 8       |
| Dimmock (c) .. ..    | 66                      | 10          | 2                                                          | 28                      | —           | 57                                                                 | 28                                                    | —       | 43                        | 11      | 18                                       | —       | 16                            | 22      |
| Epping .. ..         | 13                      | 6           | 7                                                          | 49                      | 1           | 235                                                                | 17                                                    | —       | (d)                       | (d)     | —                                        | —       | 40                            | —       |
| Halstead .. ..       | 29                      | 45          | 30                                                         | 126                     | 34          | 206                                                                | 15                                                    | —       | 14                        | 2       | 20                                       | 48      | 12                            | —       |
| Lexden & Winstree .. | 17                      | 14          | 6                                                          | 43                      | 1           | 196                                                                | —                                                     | —       | —                         | —       | —                                        | —       | —                             | —       |
| Maldon .. ..         | 30                      | 14          | 1                                                          | 23                      | —           | 117                                                                | 1                                                     | 1       | (e)                       | (e)     | —                                        | —       | 2                             | 2       |
| Ongar .. ..          | 23                      | 6           | —                                                          | 588                     | 2           | (f)                                                                | —                                                     | 21      | 118                       | 84      | —                                        | —       | —                             | —       |
| Orsett .. ..         | 20                      | 14          | 5                                                          | 39                      | —           | 99                                                                 | —                                                     | —       | —                         | 315     | —                                        | 10      | —                             | —       |
| Rochford .. ..       | 13                      | 7           | 6                                                          | 36                      | 1           | 66                                                                 | 7                                                     | 14      | 12                        | 48      | —                                        | —       | 12                            | 48      |
| Saffron Walden .. .. | 67                      | 11          | 1                                                          | 55                      | —           | 1265                                                               | 104                                                   | 20      | —                         | —       | —                                        | —       | —                             | —       |
| Tendring .. ..       | 8                       | 10          | 10                                                         | 131                     | —           | 40                                                                 | —                                                     | —       | —                         | —       | 3                                        | 15      | —                             | 18      |

## NOTES.

(a) See copy Housing Programme as sent to Ministry of Health. The Council has held three Special Meetings to deal with Demolition Orders and in most cases schedules have been applied for. It is unknown at present to what extent repairs will be executed and therefore unknown to what extent the Council will find it necessary to build. Special enquiries are now being made through the Parish Councils as to the needs of each Parish.

(b) Three totally unfit houses have been re-conditioned.

(c) The houses stated as being totally unfit for human habitation include those intended to be dealt with in the five years' programme required by the Ministry of Health.

(d) In the purely rural areas of the district it is impossible to make an estimate with any degree of accuracy. A certain number of houses are being provided by private enterprise in the populated parts. The Council have constant regard to any need as it arises and are at the present time providing a number of houses in several parishes to meet the existing needs.

(e) About 70 houses per annum would be sufficient to meet the needs of the district and it is probable that the majority of this number will be built by private enterprise. Less than half this number would be required for agricultural workers.

(f) The re-inspection of Preliminary Notices was not commenced until the 1st April, 1934.

Statement of Assets and Liabilities

For the year ended 31st March 1900

The following statement shows the assets and liabilities of the company at the close of the year ended 31st March 1900.

| Assets           | Liabilities         |
|------------------|---------------------|
| Fixed Capital    | Share Capital       |
| Reserve Fund     | Reserve Fund        |
| Current Assets   | Current Liabilities |
| Debtors          | Creditors           |
| Stock            | Unpaid Dividends    |
| Prepaid Expenses | Unpaid Interest     |
| Deposits         | Unpaid Taxes        |
| Other Assets     | Other Liabilities   |

The above statement shows the assets and liabilities of the company at the close of the year ended 31st March 1900. The assets are shown on the left and the liabilities on the right. The total assets are equal to the total liabilities, as shown by the figures in the right-hand column.



| District.              | No. of Applications. |    | No. of Cottages. |     | No. of Cottages in respect of which Grants have been made. |     | Total Grants in the Year.<br>£ |
|------------------------|----------------------|----|------------------|-----|------------------------------------------------------------|-----|--------------------------------|
| Belchamp R.            | ..                   | 1  | ..               | 3   | ..                                                         | 3   | .. 300                         |
| Bumpstead R.           | ..                   | 1  | ..               | 2   | ..                                                         | —   | .. —                           |
| Braintree R.           | ..                   | 24 | ..               | 61  | ..                                                         | 40  | .. 3,987                       |
| Chelmsford R.          | ..                   | 13 | ..               | 31  | ..                                                         | 14  | .. 1,339                       |
| Dunmow R.              | ..                   | 5  | ..               | 12  | ..                                                         | 12  | .. 1,200                       |
| Epping R. ..           | ..                   | 3  | ..               | 5   | ..                                                         | 4   | .. 400                         |
| Halstead R.            | ..                   | 17 | ..               | 44  | ..                                                         | 28  | .. 2,485                       |
| Lexden & Winstree R... | ..                   | 6  | ..               | 7   | ..                                                         | 3   | .. 300                         |
| Maldon R. ..           | ..                   | 10 | ..               | 19  | ..                                                         | 8   | .. 752                         |
| Ongar R. ..            | ..                   | 4  | ..               | 8   | ..                                                         | 4   | .. 400                         |
| Orsett R. ..           | ..                   | 2  | ..               | 5   | ..                                                         | 3   | .. 270                         |
| Tendring R.            | ..                   | 2  | ..               | 3   | ..                                                         | 1   | .. 100                         |
| Burnham U.             | ..                   | 1  | ..               | 4   | ..                                                         | —   | .. —                           |
| Clacton U. ..          | ..                   | 2  | ..               | 2   | ..                                                         | 2   | .. 200                         |
|                        |                      | 91 | ..               | 206 | ..                                                         | 122 | .. £11,733                     |

Of the Cottages included in the above applications, 122 were approved for Grants as above, 7 were not approved, 12 were withdrawn, and 65 were still under consideration at the end of the year.

The total number of cottages approved for reconditioning under the Act, in Essex, up to the 31st December, 1934, is 467. The total amount of Grants is £40,864. It is estimated that the expenditure made by the owners themselves exceeded the sum of £33,744.

Particulars of three typical cases of cottages reconstructed or improved by Grants made by the County Council under the Act during 1934, are set out hereunder :—

1. *Parish of Great Henny.*

Three timber built, plaster and thatched Cottages. Roof stripped and tiled. Walls, external and internal, replastered. New floors, new partitions, staircases, doors and windows, and two additions at rear to provide Sculleries, Food Stores and Bedrooms over. New well and pump.

Grant made to owner .. .. . £300

2. *Parish of Blackmore.*

Timber built, lath, plaster and tiled farmhouse. Conversion into two cottages. New chimney. 9in. party wall, new partitions, staircases, floors, doors and windows. Water laid on from dairy and new cesspool drainage.

Grant made to owner .. .. . £200

### 3. *Parish of Finchingfield.*

Ten brick and slated cottages (three pairs and a row of four). New additions at ends to provide parlours, staircases with bedrooms over, and at rear, sculleries with bedrooms over. Roofs stripped and tiled, new windows, new doors. External brickwork plastered. Concrete dry area round cottages. New brick and tiled wash-houses and e.c.'s.

Grant made to owner            ..            ..            ..            £1,000

With the assistance of these Grants, practically the entire Hamlet of Cornish Hall End has been reconditioned. 18 Cottages have been or at present are being, re-modelled. The total Grants promised to the owner amount to £1,800, and it is estimated that the owner himself is expending considerably in excess of £2,938 on the properties.

### SEWAGE WORKS AND RIVERS POLLUTION.

LOANS. During the year one Municipal Borough, eight Urban Districts and one Rural District made application to the Ministry of Health for sanction to borrow sums of money, a gross total of £356,082, for works of sewerage and/or sewage disposal. Public Inquiries were held on the dates shown in the following table :—

| Date of Inquiry. | Local Sanitary Authority.      | Catchment Area.      | Loan required. | Purpose.                      |
|------------------|--------------------------------|----------------------|----------------|-------------------------------|
| 1934.            |                                |                      | £              |                               |
| Feb. 9th ..      | Waltham Holy Cross U.          | Lee .. ..            | 7,500 ..       | Sewerage.                     |
| Feb. 13th ..     | Barking B. ..                  | Thames ..            | 17,343 ..      | Sewerage.                     |
| March 14th ..    | Hornchurch U. ..               | Ingrebourne and Beam | 117,000 ..     | Sewerage and sewage disposal. |
| March 14th ..    | Romford U. ..                  | Beam.. ..            | 36,500 ..      | Sewerage and sewage disposal. |
| April 11th ..    | Clacton U. .. ..               | Sea .. ..            | 18,750 ..      | Sewerage.                     |
| May 8th ..       | Epping U. ..                   | Lee and Roding ..    | 21,000 ..      | Sewage disposal.              |
| May 25th ..      | Dunmow R.<br>(Felstead Parish) | Chelmer ..           | 745 ..         | Sewage disposal               |
| June 6th ..      | Benfleet U. ..                 | Thames ..            | 10,444 ..      | Sewerage.                     |
| Nov. 16th ..     | Billericay U. ..               | Thames ..            | 76,800 ..      | Sewerage and sewage disposal. |
| Nov. 28th ..     | Canvey Island U.               | Thames ..            | 50,000 ..      | Sewerage and sewage disposal. |
|                  |                                | Total ..             | £356,082       |                               |

INSPECTIONS. The inspectorial staff was augmented during the year by the appointment of one Assistant County Health Inspector (Mr. R. H. Wigmore), who took



up duty in April, 1934. As a result, more visits were paid to sewage works, the total being 288 as compared to 80 during the previous year. 244 samples were obtained, 133 being satisfactory or on the border-line and 111 or 45 per cent. were unsatisfactory—see Table VIII on page 38. Representations were made in regard to the unsatisfactory samples and it will be seen on page 36 that six Local Authorities are either providing new sewage works or carrying out improvements to existing works. Other Local Authorities have schemes under consideration.

Temperatures of several rivers and streams were recorded at intervals throughout the year, in order to ensure compliance with Section 24 (Heated Fluids) of the Essex County Council Act, 1933. In one instance the raising of the temperature of a small stream in the north of the County was stopped by co-operative effort on the part of the firm concerned and the Rural District Council.

Seasonal operations of the Felstead Beet Sugar Factory, in the Chelmer Catchment area, commenced 26th September, 1934, and closed on 22nd January, 1935. As the result of conferences with the Factory's representatives, further improvements were carried out, notably the extension of the cooling tower and the raising and strengthening of the banks of the sludge lagoons. The discharge from the factory is now principally an effluent from a small domestic sewage works, several samples of which were unsatisfactory. Representations were made to the Works Manager to the effect that he should approach the Dunmow Rural District Council with a view to provision being made in the proposed sewerage and sewage disposal scheme for Felstead for receiving and treating the domestic sewage from this Factory. A permanent solution will then be obtained for this particular problem.

**LEE VALLEY WATERSHED.** On the 17th July, 1934, a conference was held at the Ministry of Health between representatives of the County Councils of Essex, Hertfordshire, London and Middlesex and the Lee Conservancy Catchment Board, which was convened by the Minister of Health for the purpose of investigating the question of the main sewerage and sewage disposal of the area comprising the Lee Valley Watershed.

At the conference the Middlesex County Council's representatives outlined the history and the main features of the West Middlesex Sewage Disposal Scheme which is in course of construction; they stated further, that when considering the needs of the remainder of their County it became clear that the matter could not be dealt with inside the Middlesex County boundary. The Middlesex County Council had, therefore, suggested the convening of the conference in the hope that the several counties concerned would agree to the making of a preliminary investigation and report upon the area comprising the Lee Valley Watershed.

After a general discussion, it was decided that the representatives of the Essex, Herts and Middlesex County Councils would recommend to their respective Councils as soon as possible that they agree to the preparation of a joint report, and that the cost of the investigation be defrayed by the three County Councils in proportion to the rateable value of the areas covered by the report.

The total estimated cost of the preparation of a joint report by Mr. J. D. Watson, M.Inst., C.E., would be £1,500, of which amount the Essex County Council would probably be required to contribute from £50 to £100.



TABLE VIII.

SHOWING SEWAGE WORKS, NUMBER OF VISITS, AND NUMBER OF SAMPLES TAKEN DURING THE YEAR 1934.

| Catchment Area.                                                                   | Sewage Works.                       | Sanitary District.    | No. of Visits. | Samples taken.                      |                     |        |
|-----------------------------------------------------------------------------------|-------------------------------------|-----------------------|----------------|-------------------------------------|---------------------|--------|
|                                                                                   |                                     |                       |                | No. satisfactory or on border line. | No. unsatisfactory. | Total. |
| Brain ..                                                                          | Braintree .. ..                     | Bra'tree & Bocking U. | 6              | 3                                   | 2                   | 5      |
| Blackwater ..                                                                     | Bocking .. ..                       | "                     | 4              | 4                                   | —                   | 4      |
|                                                                                   | Coggeshall .. ..                    | Braintree R... ..     | 3              | 3                                   | —                   | 3      |
|                                                                                   | Kelvedon .. ..                      | "                     | 3              | 3                                   | —                   | 3      |
|                                                                                   | Latchingdon .. ..                   | Maldon R. .. ..       | 1              | —                                   | —                   | —      |
|                                                                                   | Silver End .. ..                    | Witham U. .. ..       | 4              | 4                                   | —                   | 4      |
|                                                                                   | Tillingham .. ..                    | Maldon R. .. ..       | 1              | —                                   | 1                   | 1      |
|                                                                                   | Witham .. ..                        | Witham U. .. ..       | 4              | 4                                   | —                   | 4      |
| Cam .. ..                                                                         | Newport .. ..                       | Saffron Walden R. ..  | 3              | 3                                   | —                   | 3      |
|                                                                                   | Saffron Walden .. ..                | Saffron Walden B. ..  | 3              | —                                   | 3                   | 3      |
| Chelmer .. ..                                                                     | Chelmsford .. ..                    | Chelmsford B. .. ..   | 2              | 1                                   | 1                   | 2      |
|                                                                                   | Dunmow .. ..                        | Dunmow R. .. ..       | 5              | 4                                   | —                   | 4      |
|                                                                                   | Felstead .. ..                      | Dunmow R. .. ..       | 6              | —                                   | 5                   | 5      |
|                                                                                   | Great Watham (East)                 | Chelmsford R. .. ..   | 2              | —                                   | 1                   | 1      |
|                                                                                   | Great Waltham (West)                | "                     | 2              | —                                   | 2                   | 2      |
|                                                                                   | Thaxted .. ..                       | Dunmow R. .. ..       | 3              | 3                                   | —                   | 3      |
| Colne .. ..                                                                       | Halstead .. ..                      | Halstead U. .. ..     | 3              | —                                   | 3                   | 3      |
|                                                                                   | Laver Breton .. ..                  | Lexden & Winstree R.  | 2              | 1                                   | —                   | 1      |
|                                                                                   | Sible Hedingham .. ..               | Halstead R. .. ..     | 4              | —                                   | 4                   | 4      |
|                                                                                   | Tiptree .. ..                       | Lexden & Winstree R.  | 3              | 3                                   | —                   | 3      |
|                                                                                   | Tolleshunt Knights ..               | Maldon R. .. ..       | 4              | 1                                   | 1                   | 2      |
| Crouch .. ..                                                                      | Great Burstead .. ..                | Billericay U. .. ..   | 4              | 3                                   | —                   | 3      |
| Roach .. ..                                                                       | Rayleigh (East) .. ..               | Rayleigh U... ..      | 4              | 2                                   | 1                   | 3      |
| Ingrebourne ..                                                                    | Brentwood .. ..                     | Brentwood U. .. ..    | 5              | 2                                   | 3                   | 5      |
|                                                                                   | Harold Wood .. ..                   | Hornchurch U. .. ..   | 2              | 1                                   | 2                   | 3      |
|                                                                                   | Brook Street, South Weald           | Brentwood U. .. ..    | 6              | 2                                   | 5                   | 7      |
|                                                                                   | Upminster .. ..                     | Hornchurch U. .. ..   | 2              | —                                   | 3                   | 3      |
|                                                                                   | South Ockendon .. ..                | Purfleet U. .. ..     | 3              | 3                                   | —                   | 3      |
| Mardyke .. ..                                                                     | Bury Farm, Great Warley             | Hornchurch U. .. ..   | 3              | 3                                   | —                   | 3      |
|                                                                                   | Orsett .. ..                        | Orsett R. .. ..       | 5              | 2                                   | 3                   | 5      |
| Roding .. ..                                                                      | Abridge .. ..                       | Ongar R. .. ..        | 5              | 1                                   | 1                   | 2      |
|                                                                                   | Buckhurst Hill .. ..                | Chigwell U. .. ..     | 3              | 3                                   | —                   | 3      |
|                                                                                   | Chigwell .. ..                      | "                     | 4              | 2                                   | 1                   | 3      |
|                                                                                   | Chigwell Row .. ..                  | "                     | 4              | 2                                   | 1                   | 3      |
|                                                                                   | Epping (Southern) .. ..             | Epping U. .. ..       | 4              | —                                   | 4                   | 4      |
|                                                                                   | Grange Hill .. ..                   | Chigwell U. .. ..     | 2              | 2                                   | 1                   | 3      |
|                                                                                   | High Ongar .. ..                    | Ongar R. .. ..        | 6              | —                                   | —                   | —      |
|                                                                                   | Loughton .. ..                      | Chigwell U. .. ..     | 3              | 2                                   | 1                   | 3      |
|                                                                                   | Moreton .. ..                       | Ongar R. .. ..        | 3              | —                                   | 3                   | 3      |
|                                                                                   | North Weald .. ..                   | Epping R. .. ..       | 4              | —                                   | 4                   | 4      |
|                                                                                   | Ongar .. ..                         | Ongar R. .. ..        | 6              | —                                   | 4                   | 4      |
|                                                                                   | Theydon Bois .. ..                  | Epping R. .. ..       | 4              | 2                                   | 2                   | 4      |
|                                                                                   | Thornwood .. ..                     | Epping R. .. ..       | 7              | 2                                   | 3                   | 5      |
|                                                                                   | Wanstead .. ..                      | Wanst'd & Woodford U. | 3              | 2                                   | 1                   | 3      |
|                                                                                   | Woodford (East) .. ..               | "                     | 4              | 3                                   | —                   | 3      |
| Beam .. ..                                                                        | Hornchurch .. ..                    | Hornchurch U. .. ..   | 2              | —                                   | 2                   | 2      |
|                                                                                   | Romford .. ..                       | Romford U. .. ..      | 2              | 2                                   | —                   | 2      |
| Wid .. ..                                                                         | Billericay .. ..                    | Billericay U. .. ..   | 5              | 2                                   | 2                   | 4      |
|                                                                                   | Blackmore .. ..                     | Ongar R. .. ..        | 1              | —                                   | 1                   | 1      |
|                                                                                   | Great Warley .. ..                  | Brentwood U. .. ..    | 3              | 1                                   | 2                   | 3      |
|                                                                                   | Ingatestone .. ..                   | Chelmsford R. .. ..   | 3              | 1                                   | 4                   | 5      |
|                                                                                   | Mountnessing .. ..                  | "                     | 2              | —                                   | 1                   | 1      |
|                                                                                   | Shenfield, Hutton and Ingrave .. .. | Brentwood U. .. ..    | 5              | 3                                   | 1                   | 4      |
| Stour .. ..                                                                       | Dedham .. ..                        | Lexden & Winstree R.  | 2              | 1                                   | 1                   | 2      |
| Ter .. ..                                                                         | Hatfield Peverel .. ..              | Braintree R. .. ..    | 3              | —                                   | 3                   | 3      |
| Kirby Creek ..                                                                    | Kirby-le-Soken .. ..                | Frinton & Walton U.   | 3              | 3                                   | —                   | 3      |
| Holland Brook ..                                                                  | Thorpe-le-Soken .. ..               | Tendring R... ..      | 4              | 3                                   | 1                   | 4      |
| Other samples including private sewage works, rivers, streams, ditches, &c. .. .. |                                     |                       | 199            | 92                                  | 84                  | 176    |
| Trade effluents .. ..                                                             |                                     |                       | 46             | 19                                  | 18                  | 37     |
| Total .. ..                                                                       |                                     |                       | 43             | 22                                  | 9                   | 31     |
| Total .. ..                                                                       |                                     |                       | 288            | 133                                 | 111                 | 244    |



In accordance with the suggestion of the Ministry of Health made at the conference, the Public Health and Housing Committee conferred with representatives of the Urban District Councils of Chingford, Epping, Waltham Holy Cross and Wanstead and Woodford, and of the Rural District Council of Epping upon the question, and such representatives intimated that their respective Authorities will be willing to assist in the preparation of a joint report as suggested by the conference.

On 2nd October, 1934, the Essex County Council agreed to the preparation of a joint report with the County Councils of Hertfordshire and Middlesex upon the question of the main sewerage and sewage disposal of the area comprising the Lee Valley Watershed, and to the cost of the investigation being defrayed by the three County Councils in proportion to the rateable value of the areas covered by the report. It was also decided to widen the area of investigation so as to include portions of Essex drained by the River Roding.

On 19th December, 1934, Mr. J. D. Watson, M.Inst., C.E., issued his report, which he presented formally to a conference of Officers and Representatives of Middlesex, Hertfordshire and Essex County Councils, held at the Middlesex Guildhall on 28th January, 1935. The report recommended the adoption of two alternative schemes of sewage disposal, namely :—

- (a) The Lee and Roding Valley Joint Scheme, at an estimated cost of £10,200,000, equivalent to a rate charge of 1s. 4d. in the £.
- (b) The Lee Valley Scheme, at an estimated cost of £4,450,000, equivalent to a rate charge of 1s. 4½d. in the £.

It was felt at the conference that these two schemes appeared to be too large and too costly to be pursued at the present time. Mr. J. D. Watson then made a verbal recommendation for the adoption of a smaller Lee Valley Scheme which would make provision for sewers in East Middlesex and in the southern portion of Hertfordshire to convey the sewage to a new sewage works at Edmonton. He estimated the scheme would cost £2,000,000, equivalent to a rate charge of 10d. in the £. This smaller scheme, which excludes Essex, seemed to be the most acceptable to the Counties of Middlesex and Hertfordshire. It was decided that each County Council should proceed to consult the Local Authorities concerned in their respective areas and acquaint Middlesex with the result. Meanwhile Middlesex County Council should approach the Ministry of Health to see whether there was a possibility of a substantial grant being made by the Ministry to schemes of this kind.

**RODING VALLEY WATERSHED.** Reference was made in last year's Annual Report to "The Report on Sewage Disposal in South West and South Essex," published by Mr. E. H. Tabor, M.Inst., C.E., on 20th June, 1934. In that report Mr. Tabor stated that "it will have been gathered from preceding pages that existing arrangements are hardly adequate for ten years in the lower Roding Valley." Conferences were therefore held at which representatives were present from the Essex County Council, the Chigwell Urban District Council and the Wanstead and Woodford Urban District Council.

The first conference was held on 9th July, 1934. The County Medical Officer informed the conference that the bed of the River Roding in the upper reaches of the



river was recently found to be dry in some places and the water in the river passing through the districts of Chigwell and Woodford and Wanstead consisted entirely of sewage effluents.

The representatives of the Urban District Council of Chigwell informed the conference that they had engaged the services of Consulting Engineers to prepare and submit a report upon the question of sewerage and sewage disposal for the whole of their area, and that the question of the disposal of sewage from their area was one with which the District Council must deal without delay.

Representatives of the Wanstead and Woodford Urban District Council informed the conferences that this matter was receiving their consideration.

Subsequently the Urban District Council of Chigwell submitted a detailed scheme for sewerage and sewage disposal for their district. This scheme, which is a step in the right direction, can be made to fit in with the larger Roding Valley Scheme as outlined in Mr. J. D. Watson's report. It provides for the abolishing of the existing seven sewage works and providing a new large sewage works on the site of the existing Chigwell Sewage Works. The cost was estimated at £103,750, entailing an increase in the rates of 11d. in the £. This scheme was considered at a further conference on the 27th September, 1934, when it was suggested that the scheme might be extended to make provision for receiving sewage for treatment from the parish of Theydon Bois in the Epping Rural District. Further consideration of the whole matter was deferred, pending the publication of Mr. J. D. Watson's report.

A final conference was held on 11th March, 1935, when it was realised that the position of Chigwell Urban District was urgent and could not wait for the development of the larger Roding Valley Scheme. The Chigwell Urban District Council had, therefore, decided to proceed with their scheme, which could fit in with the larger scheme when required, and expressed the hope that the County Council would give their necessary support when the Public Inquiry was held by the Ministry of Health.

In respect to the Urban District of Wanstead and Woodford, it appeared that at the present time there was no alternative but to continue enlarging the existing works in order to deal with the sewage of the district, which was developing rapidly. The Urban District Council had, therefore, decided to proceed with the preparation of a scheme, and their representatives expressed the hope that the County Council would give it support when the Public Inquiry was held by the Ministry of Health.

**THE BEAM VALLEY WATERSHED.** In Mr. Tabor's report referred to above, reference is also made to the question that "the suitability of the Romford Works in the future, not necessarily limited to a period of ten years, is doubtful."

On 14th March, 1934, a Public Inquiry, convened by the Minister of Health, was held at Hornchurch into an application by the Urban District Councils of Hornchurch and Romford for sanction to borrow £117,000 and £36,500 respectively, for Joint Works of Sewerage and Sewage Disposal in the Urban Districts of Hornchurch and Romford.

The scheme provides for the abolition of three sewage works in the Hornchurch Urban District, for the provision of new sewers and for the treatment of the sewage at the Romford Urban District Council's Sewage Works, which are to be enlarged and



administered by a Joint Committee consisting of representatives of the two local Authorities.

Opportunity was taken to refer to the recommendations made by Mr. Tabor in his report on page 9, namely :—

“ Having regard to the rapidly growing districts to be served, it appears to me highly desirable that as an alternative to the enlargement of the Romford Works, the construction of an outfall sewer from the present site to the Thames should be considered. Arrangements could be made to treat the sewage at the Dagenham Works, suitably enlarged, or a new site could be found on the adjoining marshes. Treatment of sewage near the Thames has the advantage that a lower standard of purity is necessary than required for effluent discharged into its tributaries.”

Subsequently the Ministry of Health were interviewed specially in the matter, when representations, without success, were made with a view to securing the abolition of the existing three sewage works in the Hornchurch and one in the Romford Urban Districts, and the conveying of the sewage to the Dagenham Sewage Works or to a new sewage works on the Rainham Marshes.

### MILK SUPPLY.

#### Veterinary Inspection of Dairy Herds.

Mr. F. W. Medlock, M.R.C.V.S., Chief Veterinary Officer, took up duty on 19th February, 1934. Under his supervision a scheme for the inspection of dairy herds in the Administrative County three times yearly was commenced on 1st October, 1934. The following information has been extracted from Mr. Medlock's report for the period 1st October, 1934, to 31st December, 1934 :—

MILK AND DAIRIES ORDER, 1926. During the above period 1,754 dairy herds were subjected to a clinical examination by the Council's Veterinary Officers. These herds comprised 36,326 cows, of which 28,949 were in milk. The complete total of dairy herds in the County will not be ascertainable until the end of the first period, viz., 31st January, 1935.

These examinations are much welcomed by stock owners generally in the County, and it is the general rule that stock owners are beginning to realise their obligations and are giving the Veterinary Officers all the assistance possible in the execution of this work.

The following are the pathological conditions scheduled under the above Order, together with the numbers of cases discovered as a result of the periodical examinations :—

|                                 |    |    |     |
|---------------------------------|----|----|-----|
| Acute inflammation of the udder | .. | .. | 13  |
| Acute Mastitis ..               | .. | .. | 133 |
| Actinomyces of udder ..         | .. | .. | —   |
| Anthrax ..                      | .. | .. | —   |
| Suppuration of the udder ..     | .. | .. | 17  |
| Foot-and-Mouth Disease ..       | .. | .. | —   |



|                                                                      |                 |
|----------------------------------------------------------------------|-----------------|
| Comatose condition .. .. .                                           | —               |
| Septic condition of uterus .. .. .                                   | 26              |
| Any infection of the udder or teats which may convey disease .. .. . | 193             |
|                                                                      | <hr/> 382 <hr/> |

Notices have been served upon the respective owners restricting the sale of milk for human consumption, or use in the manufacture of products for human consumption, from such animals.

The above table does not include any animal found to be tubercular within the meaning of the Tuberculosis Order of 1925. The animals dealt under that Order are set out in the following table.

**TUBERCULOSIS.** A direct result of the routine examinations of dairy herds has been the elimination of animals suffering from Tuberculosis in forms specified in the Tuberculosis Order of 1925.

The following table shows the specified forms of disease and the numbers of animals falling under each form :—

|                               | Giving Tuberculous Milk. | Tuberculosis of the Udder. | Emaciation due to Tuberculosis. | Suffering from chronic cough and showing definite clinical signs of Tuberculosis. | Total.          |
|-------------------------------|--------------------------|----------------------------|---------------------------------|-----------------------------------------------------------------------------------|-----------------|
| Cows in milk .. .. .          | 9                        | 27                         | 20                              | 65                                                                                | 121             |
| Other Cows or Heifers .. .. . | 1                        | 2                          | 9                               | 16                                                                                | 28              |
| Other bovine Animals .. .. .  | —                        | —                          | —                               | —                                                                                 | —               |
|                               | <hr/> 10 <hr/>           | <hr/> 29 <hr/>             | <hr/> 29 <hr/>                  | <hr/> 81 <hr/>                                                                    | <hr/> 149 <hr/> |

#### **Milk and Dairies (Consolidation) Act, 1915.**

*Biological Examinations.* Out of 771 samples, 95 (or 12.3 per cent.) were found to contain tubercle bacilli. There were in addition 29 inconclusive tests owing to deaths of guinea pigs from intercurrent infection.

There was again an increase in the number of samples found to contain tubercle bacilli, the percentage for 1933 being 11.0. This may be due to the fact that the samples in 1934 were largely obtained direct from the producers and were made as representative as possible of the supply from the particular farm. An effort was also made to obtain samples from producers whose supplies had not been sampled previously.

The 95 positive samples were obtained from supplies from 96 farms. Each dairy herd at these farms was inspected by the County Council's appropriate part-time veterinary surgeon with the following results :—



- (i) 103 cows from 67 farms were slaughtered under the Tuberculosis Order, 1925. 34 were in an advanced stage of tuberculosis and 63 were not in an advanced stage of tuberculosis. The remaining 6 carcasses were purchased by the Ministry of Agriculture and Fisheries for experimental purposes, no post mortem examination being carried out by the Council's Veterinary Surgeons.
- (ii) 44 cows had been disposed of otherwise at 14 farms, 20 of them being sold at one of the farms.
- (iii) At 15 farms, the Veterinary Surgeons were unable to find any cow suffering from tuberculosis.

SECTION 4. During the year 20 notifications were received under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, to the effect that biological examinations of samples of milk from 29 farms within the County of Essex had revealed the presence of tubercle bacilli. Each dairy herd at these 29 farms was inspected by the County Council's appropriate part-time Veterinary Surgeon, with the following results :—

- (i) 24 cows from 16 farms were slaughtered under the Tuberculosis Order, 1925, 6 being in an advanced stage of tuberculosis, and 18 not in an advanced stage of tuberculosis.
- (ii) At 11 farms, the supplies from which were part of a mixed sample from 4 farms, the Veterinary Surgeons failed to find any cow suffering from tuberculosis. In regard to the remaining 2 farms, the Veterinary Surgeons visited the farms under the Tuberculosis Order, 1925, and as a result 5 cows from 1 farm and 1 cow from the other farm were slaughtered.

There were also 10 notifications in regard to excessive bacteria counts, excess of cells, streptococci and evidence of Mastitis in samples of milk. These notifications were referred to the Chief Veterinary Officer, who took all necessary action to safeguard the milk supply from the farms concerned.

#### **Tuberculosis Order, 1925.**

The Agricultural Committee are responsible for the administration of this Order, and have again taken steps to eliminate and slaughter tuberculous cows, as will be seen from the following figures which have been furnished by the Chief Veterinary Officer :—

|                                                   | 1933.     | 1934.  |
|---------------------------------------------------|-----------|--------|
| No. of animals examined by Veterinary Surgeon ..  | 45,391 .. | 46,952 |
| No. of animals slaughtered under the Order ..     | 1,366 ..  | 1,241  |
| No. of such animals found on post-mortem to be :— |           |        |
| (a) Not tuberculous .. ..                         | Nil ..    | 9      |
| (b) Tuberculous—not advanced .. ..                | 829 ..    | 706    |
| (c) Tuberculous—advanced .. ..                    | 537 ..    | 515    |
| Compensation paid by County Council ..            | £7,385 .. | £6,587 |
| Salvage .. ..                                     | £1,524 .. | £1,441 |



11 carcasses of animals were purchased by the Ministry of Agriculture and Fisheries for experimental purposes, no post-mortem examination being carried out by the Council's Veterinary Officers.

### Milk and Dairies Order, 1926.

The local Sanitary Inspectors in seven Urban Districts and five Rural Districts took advantage of the County Council's laboratory facilities by submitting 180 samples of milk to microscopical examination; one of these samples was found to contain acid-fast bacilli, indistinguishable from the tubercle bacilli. Microscopical examination of bulk milk samples is not likely to be of much use in respect to the discovery of the tubercle bacillus. These samples were also submitted to the coliform bacteria test, and in 42 samples (23.3 per cent.) coliform bacteria were not absent in 1/1000th cubic centimetre, arbitrarily adopted for the present as an easily attainable standard of cleanliness.

### Milk (Special Designations) Order, 1923.

The following licences to produce graded milks were in operation during the year 1934 :—

| Kind.                                | No. | Granted by.         |
|--------------------------------------|-----|---------------------|
| Certified Milk .. ..                 | 7   | Ministry of Health. |
| Grade A. (Tuberculin Tested) Milk .. | 20  | Ministry of Health. |
| Grade A. Milk .. ..                  | 33  | County Council.     |
| Total .. ..                          | 60  |                     |

GRADE A MILK. 267 visits were paid to farms licensed to produce Grade A Milk, where 258 samples were obtained. This is the greatest number of samples taken, due to the appointment of an Assistant County Health Inspector, who took up duty in April, 1934.

### Roll of Accredited Milk Producers.

In August, 1934, the Milk Marketing Board published their first Scheme for establishing a Roll of Accredited Milk Producers to operate as and from 1st January, 1935. The object of the Scheme was to co-operate with the Public Health Authorities in a national effort to improve the purity and quality of the milk supply of the country.

The methods proposed by the Board involved the raising of a fund by a levy upon producers of a small sum per gallon of milk produced and the expending of that fund in the payment of premiums to accredited producers, *i.e.*, producers who satisfy the conditions laid down by the Board with regard to the production of milk. Substantial participation of County Councils in the scheme was essential.

This scheme did not meet with the approval of the County Councils' Association as it could not be considered apart from the findings of the Cattle Diseases Committee of the Economic Advisory Council, and further, that apparently there was no method of preventing the mixing by distributors of accredited milk with that of a lower standard, with consequent contamination of the accredited milk.



Accordingly, on 2nd October, 1934, the County Council declined to take any steps in the Milk Marketing Board's scheme, pending its consideration by the Executive Council of the County Councils' Association. Eventually the scheme was withdrawn by the Milk Marketing Board.

In February, 1935, a further scheme was published by the Milk Marketing Board, to operate as and from 1st May, 1935. It provides for the payment of bonuses on milk *produced* under Grade A licences and was evolved by the Board in conjunction with the County Councils' Association and the Association of Municipal Corporations. Further particulars will be recorded in the report for 1935.

### **Scheme for the Supply of Milk in Schools.**

A scheme to supply milk to schools was inaugurated seven years ago by the National Milk Publicity Council, and many schools in the area of the Essex Education Committee have for some years had a voluntary scheme of this kind in operation. An extension of this scheme by the Milk Marketing Board has been made possible under the Milk Act, 1934. Under that Act, the Government will contribute, under certain conditions, towards a fund to meet the cost of schemes for increasing the consumption of milk. It is a condition of this grant that first consideration shall be given to a scheme for the provision of milk in schools. The major portion of the fund is being used to reduce the price of milk to scholars from the old rate of 1d. for one-third of a pint to  $\frac{1}{2}$ d. for the same quantity.

The main object of the scheme, which came into operation on 1st October, 1934, is to ensure, by arrangements organised by teachers on a voluntary basis, that an increasing number of school children shall be afforded facilities for obtaining one-third of a pint of milk, complete with straw, at the reduced price of  $\frac{1}{2}$ d. per bottle. The scheme applies only in respect of milk actually consumed in schools or at approved centres. It could operate seven days a week and throughout the holidays, provided the children were assembled to consume the milk, and that none of it was used for cooking purposes.

Two certificates are required by the Milk Marketing Board before they will pay the rebates to the farmers, namely, (1) a certificate from the Head Teacher of the school or course, or other person approved by the Local Education Committee, to the effect that the milk has been consumed in the school or in some other approved centre; and (2) a certificate from the County Medical Officer, after consultation with the local Medical Officer of Health, to the effect that the source and quality of the milk supplied have been approved.

1. On 26th September, 1934, the Director of Education issued a circular to every Head Teacher, giving full particulars of the new milk scheme, and asking for certain information in regard to any arrangements which had been or were being made. The Head Teachers have responded readily and willingly, with the result that there has been a considerable increase in the amount of milk consumed under these voluntary arrangements. At the time of writing, this scheme is in operation in 446 schools or departments, and it is estimated that 35,600 school children are each receiving one-third of a pint of milk per day.



2. The local Medical Officer of Health has been consulted, and was asked to answer the following questions in connection with each retailer and each producer :—

- | Retailer.                                                                                                                             | Producer.                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| (1) Is the dairyman complying with the Milk and Dairies Order, 1926 ?                                                                 | (1) Is the milk producer complying with the Milk and Dairies Order, 1926 ?                                                     |
| (2) Have any samples been obtained by you and submitted to the bacteria and/or coliform test ? If so, please give the results.        | (2) Have any samples been obtained by you and submitted to the bacteria and/or coliform test ? If so, please give the results. |
| (3) What kind of milk is supplied to the school ?                                                                                     | (3) What kind of milk is supplied to the school ?                                                                              |
| (4) If "efficiently pasteurised" milk is not supplied, is it available in the locality ?<br>If so, give name and address of dairyman. | (4) Do you regard the "source and quality" of the milk supplied to this school or schools as satisfactory ?                    |
| (5) Do you regard the quality of the milk supplied to this school or schools as satisfactory ?                                        |                                                                                                                                |

Question (4) submitted in regard to the retailer, was necessary owing to the fact that the Board of Education, by Circular 1437, dated 5th September, 1934, desired "to urge that in areas where a supply of efficiently pasteurised milk is available, such milk should in all cases be provided. In other areas, all possible precautions should be taken to ensure as far as practicable the safety of the supply." The primary object of this statement was to secure the provision of as safe a milk as possible for the school children. In these circumstances, where the Medical Officer of Health stated that efficiently pasteurised milk was available in the locality, the Head Teacher was asked to make arrangements for that grade of milk to be purchased, and to give due notice for the termination of the supply of ordinary raw milk. The word "available" was interpreted to mean that efficiently pasteurised milk was actually being sold in the village or within half-a-mile of the school. Further, the Head Teachers were notified that if "Grade A" (Tuberculin Tested) milk was available under the scheme, it should be obtained in preference to pasteurised milk, bearing in mind that the various grades of milk should be taken in the following order of merit :—Certified Milk, "Grade A" (Tuberculin Tested) Milk, Pasteurised Milk, "Grade A" Milk, ordinary Raw Milk.

446 certificates approving of the "source and quality" of milk supplies are now in operation. These certificates include the approval of the supply of the following grades of milk :—

| Grade of Milk.                |    |    | No. of<br>Certificates. | Percentage. |
|-------------------------------|----|----|-------------------------|-------------|
| Certified                     | .. | .. | 2                       | 0.4         |
| "Grade A" (Tuberculin Tested) | .. | .. | 19                      | 4.2         |
| Pasteurised Milk              | .. | .. | 207                     | 46.5        |
| "Grade A" Milk                | .. | .. | 36                      | 8.1         |
| Ordinary Raw Milk             | .. | .. | 182                     | 40.8        |



### WATER SUPPLIES.

During the year, four Rural District Councils made application to the Ministry of Health for approval to loans for works of water supplies, and in consequence, public Inquiries were held on the dates shown below :—

| Date of Inquiry. | Local Sanitary Authority. | Parish.                                                                                                                                     | Loan required.                           |
|------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1934.            |                           |                                                                                                                                             | £                                        |
| January 4th ..   | Chelmsford R.D. ..        | Little Baddow .. ..<br>Danbury .. ..<br>East Hanningfield .. ..<br>Rettendon .. ..<br>Runwell .. ..<br>Sandon .. ..<br>Woodham Ferris .. .. | 53<br>140<br>29<br>67<br>68<br>26<br>142 |
| February 7th ..  | Bumpstead R.D. ..         | Ashen and Ovington ..                                                                                                                       | 3,050                                    |
| February 8th ..  | Saffron Walden R.D. ..    | Great Chesterford ..                                                                                                                        | 7,600                                    |
| March 7th ..     | Chelmsford R.D. ..        | Stock and Buttsbury ..                                                                                                                      | 4,100                                    |
| July 10th ..     | Lexden & Winstree R.D. .. | 15 Contributory Places ..                                                                                                                   | 54,000                                   |
| August 1st ..    | Saffron Walden R.D. ..    | 19 Contributory Places ..                                                                                                                   | 67,900                                   |
| August 14th ..   | Chelmsford R.D. ..        | 7 Contributory Places and the<br>Gt. Baddow Special Drainage<br>District                                                                    | 22,400                                   |
| October 31st ..  | Saffron Walden R.D. ..    | Elsenham<br>Henham<br>Ugley                                                                                                                 | 16,500                                   |
|                  |                           |                                                                                                                                             | £176,075                                 |

On 17th July, 1934, the Ministry of Health held a Public Inquiry into an application from the Brentwood Urban District Council for an Order for putting in force the provisions of Section 6 of the Public Health Water Act, 1878.

The rainfall in inches as recorded at the County Meteorological Station at Chelmsford for the year 1934 is compared below with the figures for 1933 and 1932 :—

|                 |    | Rainfall in inches. |       |       |  |
|-----------------|----|---------------------|-------|-------|--|
| Month.          |    | 1934.               | 1933. | 1932. |  |
| January .. ..   | .. | 1.36                | 1.21  | 1.15  |  |
| February .. ..  | .. | 0.19                | 1.14  | 0.23  |  |
| March .. ..     | .. | 2.06                | 1.64  | 1.10  |  |
| April .. ..     | .. | 2.04                | 0.76  | 1.96  |  |
| May .. ..       | .. | 0.51                | 1.42  | 3.69  |  |
| June .. ..      | .. | 1.35                | 1.09  | 0.60  |  |
| July .. ..      | .. | 1.86                | 0.93  | 2.14  |  |
| August .. ..    | .. | 1.46                | 0.37  | 1.09  |  |
| September .. .. | .. | 0.95                | 1.85  | 1.77  |  |
| October .. ..   | .. | 1.41                | 1.53  | 4.90  |  |
| November .. ..  | .. | 1.52                | 1.15  | 1.12  |  |
| December .. ..  | .. | 3.96                | 0.55  | 0.33  |  |
| Totals .. ..    | .. | 18.67               | 13.64 | 20.08 |  |



For the ten years 1925 to 1934 the average rainfall was 22.3 inches at Chelmsford.

It will be seen that at Chelmsford 5.03 inches more rain fell in 1934 than in 1933. December was the wettest month of the year, rain falling on 28 days, producing 3.96 inches of rain, an increase of 3.41 inches over the figure for the corresponding month of 1933. Acute shortage of water again occurred in many rural parts of the County.

On 6th March, 1934, the County Council approved of the recommendation of the Public Health and Housing Committee to appoint a Water Engineer, owing to the need for carrying out a thorough survey of the Rural Area ; for consulting the Statutory Water Undertakers in the County regarding further sources and storage of water supplies in view of the drought and increase in population ; and for the gauging of the various rivers in the County over a prolonged period.

Mr. J. Mackworth Wood, M.Inst., C.E., who, in 1926, reported upon the water supplies of Essex, was engaged, and he commenced the survey on 22nd March, 1934, the points of reference submitted to him to report on being :—(a) The existing water supply in each village ; (b) The needs of each village ; (c) The existing source of public supplies ; (d) The new sources for public supplies.

Mr. J. Mackworth Wood published his report on 20th September, 1934. It is divided into seven parts, namely :—

PART I is of an introductory character, the following paragraph being significant :—

“ The present drought which we are now experiencing is much more acute than the record drought of 1921 and 1922. It bids fair to rival any drought recorded in this country for the past 100 years, and is primarily responsible for the failure of a number of Rural Village primitive supplies deriving water from comparatively speaking shallow surface gravel wells and springs, as well as Urban supplies which have become depleted and failed.”

PART II summarises recent legislation affecting water supplies, namely, Local Government Act, 1929, under Section 57 of which County Councils are empowered to make grants towards the cost of water supply schemes ; Supply of Water in Bulk Act, 1934, empowering Statutory Water Undertakers to give and take supplies of water in bulk ; Rural Water Supplies Act, 1934, empowering the Minister of Health to make contributions towards expenses incurred by Local Authorities in providing or improving supplies of water in rural localities ; and Water Supplies (Exceptional Shortage) Orders Act, 1934, authorising the Minister of Health and the Secretary of State to make Orders and to give directions with a view to meeting deficiencies in water supplies due to exceptional shortage of rain, and for purposes connected with the matters aforesaid.

PART III describes the position of the five Waterworks Companies in the Administrative County of Essex.

PART IV gives an account of the conferences with representatives of the five Waterworks Companies, when consideration was given to the following points :—



- (1) Whether, in view of the ever-increasing population, the existing sources of supplies are sufficient to meet present and immediate needs.
- (2) Whether the Companies are contemplating acquiring new sources of supplies or augmenting existing schemes of supplies.
- (3) What immediate action can be taken to assist those parishes inside or outside the Companies' statutory areas where there is a shortage of water.

PART V deals with the position in respect to water supplies in each parish in each Rural District.

PART VI describes the rivers of Essex, and commences with the statement that "from my long experience, extending over half a century, and from my own personal observations, I have never seen the Essex rivers in such a depleted condition as they are to-day, and I am particularly concerned as to the present dry weather flow of those rivers which afford a river supply to the two great Waterworks Companies, namely, the South Essex and Southend Waterworks Companies."

The Report recommends that a gauging station should be established on the River Colne and another on the River Cam.

PART VII expresses the writer's thanks to those who assisted in the work.

GENERAL. When Mr. J. Mackworth Wood completed his survey of each rural district, an advance copy of his report on that district was sent to the Rural District Council concerned for their observations. At the time of writing, nearly all the Rural District Councils in Essex have dealt comprehensively with their districts in this important matter. The following is a summary of the present position :—

(a) *Braintree R.* A comprehensive scheme for the northern portion of the district has been adopted, and a scheme for the southern portion is now under consideration.

(b) *Chelmsford R.* Comprehensive schemes have been adopted, and some of them have been or are being carried out.

(c) *Dunmow R.* A comprehensive scheme for the whole Rural District has been adopted.

(d) *Epping R.* All the fourteen parishes in this Rural District are within the statutory area of the Herts & Essex Waterworks Company, and every parish except one has piped supplies.

(e) *Halstead R.* No comprehensive scheme at present.

(f) *Lexden & Winstree R.* Comprehensive schemes for the whole Rural District have been adopted, and are being carried out.

(g) *Maldon R.* Comprehensive schemes for the whole Rural District have been adopted, and are being carried out.



(h) *Ongar R.* Nineteen of the twenty-six parishes are in the statutory area of the Herts & Essex Waterworks Company. Schemes for extending mains have been adopted, or are being carried out. No comprehensive scheme appears to have been considered for the remainder of the area.

(i) *Orsett R.* Eleven of the thirteen parishes are within the statutory area of the South Essex Waterworks Company, one in the statutory area of the Southend Waterworks Company, and one is provided with water by the Rural District Council. Twelve of the thirteen parishes have a piped supply, and a scheme for a piped supply has now been adopted for the remaining parish.

(j) *Rochford R.* All the parishes in this Rural District are situated in the statutory area of the Southend Waterworks Company. Two small parishes are without piped supplies, but there are no complaints of shortage.

(k) *Saffron Walden R.* Comprehensive schemes for the whole Rural District have been adopted, and are now being carried out.

(l) *Tendring R.* Seventeen of the twenty-four parishes are in the statutory area of the Tendring Hundred Waterworks Company. Two small extensions of mains are to be carried out. No comprehensive scheme for the remainder of the district.

CONCLUSION. It will be seen from the above summary that with three exceptions every Rural District has, or will have, comprehensive schemes in operation.

### ESSEX COUNTY COUNCIL ACT, 1933.

#### Refuse Dumps.

The full effect of the powers under Sections 146-157 of the Essex County Council Act, 1933, in conjunction with the Third Schedule, came into force in July, 1934. These powers aim at controlling the depositing of refuse in any place within the County other than a place within the County district in which the refuse is collected or assembled. In other words, it is mainly to control the dumping in Essex of refuse which has been collected in London.

There are now ten refuse dumps in Essex which must comply with the conditions of this Act. Surprise visits have been paid to these dumps from time to time, and it is satisfactory to note that efforts are being made to comply with the provisions of the Act.

Under Section 146 (3), the County Council, with the consent of the local authorities, may prescribe areas in the County where dumping on a large scale may take place in accordance with Part II of the Third Schedule. During the year, one area at Bowers Gifford in the Billericay Urban District was prescribed in accordance with this subsection.

#### Establishments for Massage and Special Treatment.

On 1st April, 1934, Sections 54-71 of the Essex County Council Act, 1933, regarding establishments for massage and special treatment came into force by resolution.



of the County Council, in the Boroughs of Chelmsford, Colchester, Maldon and Saffron Walden, the Urban Districts of Brentwood, Chigwell, Chingford, Clacton, Dagenham, Epping, Grays, Hornchurch, Purfleet, Romford, Tilbury and Waltham Holy Cross, and the Rural Districts of Epping, Ongar and Orsett.

On 1st August, 1934, the Sections also came into force by resolution of the County Council, in the Urban Districts of Billericay, Frinton & Walton, and Wanstead & Woodford.

By Section 69, the powers and duties under the Part of the Act are delegated to the Boroughs of Barking, Ilford, Leyton and Walthamstow, who can, by resolution, declare when this Part of the Act shall come into force in their districts. Conditions and restrictions to be imposed upon the exercise of the powers and duties of Part IV of the Essex County Council Act, 1933, were approved by the County Council on 6th March, 1934.

On the same date the County Council approved bye-laws for the regulation of licensed establishments for massage and special treatment.

During the year under review licences were granted to sixteen applicants authorising them to carry on establishments for massage or special treatment on the premises approved.

## TOWN AND COUNTRY PLANNING.

**NORTH-WEST ESSEX REGIONAL PLANNING COMMITTEE.** On 3rd April, 1934, the County Council decided to enter into an agreement with the Borough Council of Saffron Walden, the Urban District Councils of Braintree, Halstead and Witham, and the Rural District Councils of Dunmow, Halstead and Saffron Walden for the constitution of a Joint Planning Committee for such portion of the County as is included within the respective areas of these Authorities.

**OPEN SPACES.** On 2nd January, 1934, the County Council approved of the purchase of the property known as One Tree Hill, Corringham, comprising approximately 60 acres of land (together with dwelling house erected thereon), as an open space, making a total of 119 acres in the vicinity of Langdon Hills owned by the County Council. For the good rule and government and suppression of nuisances in regard to these open spaces, the County Council adopted Bye-laws on the 3rd July, 1934.

Consideration was given to a request from the National Playing Fields Association and the Commons, Open Spaces and Footpaths Preservation Society for a contribution towards the acquisition of 303 acres of land adjoining Hainault Forest, which it was hoped to purchase as an addition to the Forest and to be used as an open space and for playing fields, at a cost of £9,324, plus £200 costs. Contributions amounting to £7,500, including £2,500 from the London County Council, had been promised. On 5th May, 1935, the County Council agreed to contribute the sum of £1,250 towards the acquisition of this land, subject to the inhabitants of this County being granted equal facilities to those living in the County of London in regard to renting of land for playing field purposes, and to the same being conveyed to the London County Council upon the same terms as regards maintenance and upkeep as the existing Hainault Forest,



**BUILDING BYE-LAWS.** Under Section 133 of the Essex County Council Act, 1933, provision is made for the extension of Section 165 of the Public Health Act, 1875, so as to enable local authorities within the Administrative County to make additional Bye-laws with the object of regulating the height, design and external appearance of new buildings. A model set of Bye-laws for the purpose was drafted by the Clerk of the County Council, who provisionally settled their form with the Ministry of Health. A copy of these Bye-laws was sent to each local authority in the Administrative County, with the suggestion that full use of the section should be made as soon as possible. Many local authorities readily responded and have already applied to the Ministry of Health for the additional powers of control under this section.

### FOOD AND DRUGS.

The Administrative County is now divided into two districts for the sampling of Food and Drugs, namely, Eastern and Western Districts. The following statistical information relating to this work has been kindly furnished by the County Analyst, Dr. Bernard Dyer, 17, Great Tower Street, London, E.C. (Telephone No. Royal 6608), and relates to the year 1st December, 1933, to 30th November, 1934 :—

| Samples taken from Vendors.         | Samples<br>Analysed. | Samples<br>Unsatisfactory. | Percentage of<br>Unsatisfactory<br>Samples. |
|-------------------------------------|----------------------|----------------------------|---------------------------------------------|
| Eastern District of the County ..   | 1,298                | .. 75                      | .. 5.8 (4.65)                               |
| Western District of the County ..   | 2,363                | .. 30                      | .. 1.3 (2.28)                               |
| Chingford Urban District Council .. | 3                    | } 1                        | .. 0.8 (3.18)                               |
| Dagenham Urban District Council ..  | 3                    |                            |                                             |
| Borough of Walthamstow ..           | 78                   |                            |                                             |
| Wanstead Urban District Council ..  | 40                   |                            |                                             |
|                                     | 3,785                | .. 106                     | .. 2.8 (3.15)                               |

#### “ Appeal to Cow ” Samples :—

|                                   |       |
|-----------------------------------|-------|
| Eastern District of the County .. | 40    |
| Western District of the County .. | 24    |
|                                   | 3,849 |

In the above table the percentage of unsatisfactory samples for the year 1933 is given in brackets, and it is satisfactory to note that on the whole there has been a decrease from 3.15 per cent. to 2.8 per cent.

In his Report reviewing the year's work, Dr. Dyer refers to the following points :—

**MILK.** Thirty-four samples were certified as containing added water, varying from as little as 2 per cent. in an extreme case to as much as 37 per cent. Three of these samples were also deficient in fat to a greater extent than that due to dilution with water.

Forty-nine samples showed deficiency in fat ranging from 5 to 47 per cent. of the minimum quantity expected in normal milk as indicated in the regulations.



**SUET.** A sample sold under the simple description "Suet" consisted of the preparation known as "Shredded Suet," containing rice flour.

Two samples sold as Shredded Suet with an indication of the presence of rice flour were found to contain an excess of the latter ingredient beyond the now recognised limit proper for such admixture.

**TRIPE.** Four samples of tripe were found to contain boric acid contrary to the regulations, and in connection with these samples a sample of so-called "Tripe Bleach" was submitted to us, which was found to consist of sodium perborate, a substance legally inadmissible for the purpose for which it was designed.

**SWEETS.** Some sweets sold under the name of "Butter Nuts" were found to contain only a small quantity of fat (only 1.4 per cent.) which did not appear to be butter fat.

One specimen of sweets, otherwise genuine, was found to be dirty as though the sweets had been spilt on a dirty floor and swept up.

**VINEGAR.** Four samples were deficient in acetic acid. In one of these cases the disappearance of acetic acid appeared to be accounted for by the fact that the sample came from the dregs of a malt vinegar cask which had been kept for a long time.

One sample described as "Malt Vinegar" was found to have been prepared from sources other than malt.

### **Analysis of Milk Samples.**

In a report for the three months ended November, 1934, Dr. Dyer and Dr. Tayler make some interesting remarks in regard to the analysis of milk samples from the point of view of the Food and Drugs (Adulteration) Act, namely :—

During the long period of our tenure of office as Analysts under this Act, it has been our constant custom never to express on a certificate the opinion that a sample of milk contains added water by reason only of a deficiency in total non-fatty solids, without having also made a detailed analysis thereof sufficient to indicate whether or not the milk afforded any indication of natural abnormality of composition which would account for the deficiency on grounds other than that of dilution with water; and the results of such detailed analysis have, on very many occasions, enabled us to confidently certify as genuine samples of milk which would be condemned by merely arithmetical regard to the figures laid down in the regulations.

In recent years this useful method of investigation of bad or doubtful cases by detailed analysis has, after long and laborious investigation at home and abroad, been further supplemented by the now firm establishment of the principle that Nature, while allowing considerable latitude in the chemical composition of milk, nevertheless, maintains within narrow limits a constancy in the temperature at which it freezes, extending even to those abnormal cases in which some physiological cause may upset the normal proportion to one another of proteins, milk, sugar, &c.



Any dilution with water, whether of rich milk or of poor milk, disturbs its physical condition in a way that is at once registered by a departure from the normal narrow range of the freezing point, the determination of which (when the milk is sufficiently fresh to allow of it) affords either a corroboration or a refutation of the initial presumptive significance of a shortage in non-fatty solids.

We have referred to this in previous reports, but do so again now in view of the illustrative cases herein recorded because certain observations made about the freezing point of milk at the recent meeting of the British Association, which have been reported in the press without full understanding or appreciation of the context in which they occurred, have raised some needless uneasiness among producers of milk. This uneasiness has been exemplified in an editorial note in a recent number of our valuable County periodical, the "Essex Farmers' Journal," and we, therefore, wish to take this opportunity of emphasising that the freezing point test affords not merely a means of detecting or confirming adulteration, but that it also acts as a safeguard of the utmost value to the producer or vendor of abnormally poor milk from accusation of dilution with water. Unhappily, there is no corresponding test for distinguishing milk naturally low in fat from milk in which the fat has been lowered either by skimming or by the cream being allowed to distribute itself unequally, or by admixture with separated milk.

In such cases the Analyst can but record the deficiency of fat in relation to the regulations to which he is officially bound to have regard.

It is the custom, however, in the County, when such cases occur, for our Inspectors to make such full enquiry and investigation as may be possible, including the taking, at the place of origin of early samples of the milk which is being yielded by the cows said to be responsible for the defective sample.

#### MENTAL DEFICIENCY.

Arrangements have continued whereby Dr. T. P. Puddicombe, Deputy County Medical Officer, examines and reports on cases submitted by the County Committee for the Care of the Mentally Defective and similarly for cases referred by the Justices. Under this arrangement 310 persons have been examined and reported on during 1934. These are classified as follows :—

|                             |    |    | Males. |    | Females. |    | Total.  |
|-----------------------------|----|----|--------|----|----------|----|---------|
| Feeble-Minded               | .. | .. | 97     | .. | 71       | .. | 168 (a) |
| Imbeciles                   | .. | .. | 49     | .. | 41       | .. | 90 (b)  |
| Idiots                      | .. | .. | 13     | .. | 9        | .. | 22      |
| Moral Defectives            | .. | .. | 2      | .. | —        | .. | 2       |
| Not certified under the Act | .. | .. | 18     | .. | 10       | .. | 28 (c)  |
|                             |    |    | 179    | .. | 131      | .. | 310     |

The above includes under (a) 16 males and 1 female; (b) 1 male and (c) 5 males and 1 female, referred for examination by the Justices.

(a) Two also suffer from epilepsy, one is a post encephalitic and one a pseudo hypertrophic muscular paralysis case.

(b) Four also suffer from epilepsy.

(c) Three are epileptics.



The Essex Voluntary Association continues to render most valuable service in preliminary enquiries, assistance in ascertainment and after-care of defectives. Grants are made to the Association by the Statutory Committee for this work. The Association is also responsible for the organisation and effective control of the Occupation Centres, of which there are four, viz. : Barking, Ilford, Walthamstow Junior Mixed, and Walthamstow Senior Boys. The Leyton Centre was closed in September, 1934.

Provision of institution care has continued under the same difficulties due to lack of sufficient beds, the increased accommodation at the Royal Eastern Counties Institution not being available as early as was at first anticipated. The new buildings are now practically completed and 1935 should see an absolute clearance of the waiting list.

In anticipation of this increased accommodation, a preliminary investigation has been made of mentally defective persons in Public Assistance Institutions, with a view to arranging for the transfer of those in need of special care or training as soon as places are available.

At the end of 1934 the Statutory Committee were responsible for the care or supervision of 1,741 persons as follows :—

|                                             | Males. | Females. | Total. |
|---------------------------------------------|--------|----------|--------|
| In Institutions .. .. .                     | 321    | 264      | 585    |
| Under Statutory Supervision ..              | 581    | 462      | 1043   |
| Under Guardianship.. .. .                   | 19     | 14       | 33     |
| Number on licence from Institutions .. .. . | 38     | 42       | 80     |
|                                             | 959    | 782      | 1741   |

These include 52 places in Institutions, 3 under Guardianship and 109 under Statutory Supervision during the year.

### BLIND PERSONS ACT, 1920.

The County Council and Minister of Health approved of a Scheme in 1923 whereby the duties under the Blind Persons Act, 1920, were delegated to the Education Committee and from this time onwards the work was carried out by the County Association for the Blind by arrangement with the Education Committee.

During 1934 the question of additional facilities for the supervision, care and social welfare of blind persons under the Act received careful consideration. In July, 1934, an amended Scheme for promoting the welfare of blind persons resident in the Administrative County of Essex under Section 2 (i) of the Blind Persons Act, 1920, was approved by the County Council and this Scheme, with a few amendments, received the sanction of the Minister of Health in January, 1935.

Modifications of the Scheme as formerly administered by the Essex County Association for the Blind include the following important points :—

- (1) That, before a person is placed on the Blind Register or allowed any grant, he or she shall be certified on Form B.D.8 (the official form



advised by the Ministry of Health) as blind by a medical practitioner having special experience in ophthalmology. This form includes the following information :—

- (a) The degree of visual acuity in each eye after correction of errors of refraction.
- (b) The nature and extent of visual defects present.
- (c) A definite opinion formed after due consideration of all visual conditions that the person is so blind as to be unable to perform any work for which eyesight is essential.
- (d) A report on persons not considered blind within the meaning of the Act at time of examination, but who, in the opinion of the certifying Ophthalmic Surgeon, will become blind within the meaning of the Act during the next four years.

In order to comply with the above requirement an Ophthalmic Specialist, Mr. G. J. Ahern, M.R.C.S., D.O.M.S., was appointed and took up whole-time duty in September, 1934.

In addition, the services of Mr. T. Collyer Summers, F.R.C.S., Consulting Ophthalmic Surgeon to the County Council, continue to be available at Oldchurch Hospital, Romford, by arrangement with the Public Assistance Committee.

- (2) The administrative and statutory work under the Act is now arranged by the Council's own staff under the Education Committee and a Special Blind Persons Act Committee has been formed with power to co-opt persons with experience in connection with the welfare of blind persons.
- (3) In view of the intention of the Local Government Act, 1929, arrangements are made whereby all grants to necessitous unemployable blind are dealt with under the Blind Persons Act.
- (4) Whilst the excellent work previously carried out by the County Association for the Blind is recognized, it was considered advisable that this Association should in future deal only with the voluntary side of the work and in this they can and no doubt will continue to render valuable assistance.

Since the appointment of Mr. Ahern, arrangements have been made whereby Form B.D.8 is completed for all newly certified blind persons. Also, all persons already on the Blind Register are gradually being reviewed and this form completed in the more long-standing cases where the information is considered reliable and useful.

These modifications in the control of the Scheme and more detailed certification should ensure and facilitate a more complete working of the intentions of the Act.

It may appear a simple matter to certify a person blind. This is not so. Frequently it is difficult. The test of blindness is not whether the person is unable to pursue his ordinary occupation or any particular occupation, but whether he is so



blind as to be unable to perform *any* work for which eyesight is essential. Furthermore, only the visual conditions can be taken into account and other bodily or mental infirmities are disregarded. The age of the person at the onset of the visual defect, the rapidity of its development and the amount of "side vision" are all considered and complicate the question.

The criteria set out by the Ministry (Circular 1353, dated October, 1933) have been adopted for determining whether or not a person satisfies the condition laid down in the Act, but on occasions cases will arise which can only be dealt with according to the judgment of the certifying Ophthalmic Surgeon.

In the certification of blind persons in the County of Essex, although only visual factors are taken into consideration in deciding whether a person's name is added to the Blind Register or not, other factors are investigated such as occupational and industrial conditions, medical and surgical diseases associated with or pre-disposing to blindness and the incidence of consanguinity and hereditary factors. Information collected and studied over an extensive period may in time be of valuable help in eliminating certain causes and contributory factors in the most tragic of all maladies to which the flesh is heir.

A copy of each certificate and report (B.D.8) is forwarded to the Prevention of Blindness Committee.

By the end of December, 1934, 245 persons had been examined, viz. : 99 men and 146 women.

Periods of occupational training are arranged for all suitable blind persons. Seven Home Teachers of the blind are also employed, viz. : 1 man and 6 women.

The Register of Blind Persons on the 31st March, 1935, shows a total of 1,478 (male 732, female 746). Of these 1,387 (male 682, female 705) are over 16 years of age, and of these 1,106 (male 465, female 641), are reported as unemployable.

During the year 238 persons were added to the Register and 192 names removed, making a net increase on the Register of 46.

Of the removals 89 died, 47 removed to other areas, 6 were lost sight of, 12 were transferred as chargeable to other Authorities, and 38 removed as not coming within the definition of a blind person.

On the observation list for prevention of blindness 449 names remain, 170 names being removed from the list and 145 new cases added, making a net decrease of 25 under observation.

### PROPAGANDA.

(1) TRAVELLING HEALTH EXHIBITION. The County Council assisted in providing Health Exhibitions in the following districts :—Canvey Island, Chelmsford (Essex Rural Community Council), Danbury, Great Wakering, Pitsea, Stebbing, Theydon Bois, Witham.

(2) HEALTH LECTURES. Members of the staff of the County Public Health Department gave 15 lectures during the year to Women's Institutes, Women's Guilds, Midwives Associations, Nursing Associations, &c.



### MENTAL TREATMENT ACT, 1930.

As mentioned in my report for 1933 meetings of general practitioners were addressed by Dr. Masfield and Dr. Turnbull, Medical Superintendent of the Brentwood and Severalls Mental Hospitals respectively, on the advantages of the Act and the facilities available in Essex.

These meetings were held at Brentwood Mental Hospital on the 20th February, 1934, and Severalls Mental Hospital on the 16th March, 1934, the main objects being to explain the Act and encourage the more general use of the advantages provided for dealing with patients.

Reports appear to indicate that a definite result has been attained as more use is being made of the facilities provided. It is still, however, necessary to stress this point because it is considered there is ample justification for stating that full advantage of the facilities for the admission of cases as temporary patients has not yet been attained.

Out Patient Consultative Clinics at the Essex County Hospital, Colchester, and the Oldchurch Hospital, Romford, have continued and the Medical Superintendents report as follows :—

At the Colchester Clinic held every Monday at 3 p.m. there are 90 cases on the register. Dr. Turnbull sees an average of from 6 to 7 patients per session and reports as follows :—

“ I think, on the whole, there has been a gradual increase in the number of cases seen during the last few years. In addition to the patients seen at the clinic itself, I have, from time to time, visited and examined cases at the Fever Hospital, and at the Essex County Hospital, also at the Police Station and the Public Assistance Institution when required.”

At the Romford Clinic held every Friday at 2.30 p.m. Dr. Masfield reports :—

“ I find that during 1934 I saw 130 patients involving 266 attendances. 70 of these patients were in-patients at Oldchurch Hospital and the majority of the others were sent to me by outside practitioners. This shows an increase of 13 in the number of patients seen over the previous year.

With the assistance of the Lady Social Worker a number of patients seen have been accommodated in country homes under the auspices of the Mental After Care Association. In some cases certification has been avoided by recommending voluntary or temporary treatment under the Mental Act.

The new accommodation provided has been very much appreciated, and I should again like to express my thanks to the Nursing Staff for their unfailing help.”

Three additional Consultative Clinics have been arranged and commenced early in 1935 as follows :—

- (a) The Chelmsford and Essex Hospital, Chelmsford, attended by Dr. Turnbull, every Wednesday, at 2.30 p.m.



Two Clinics attended by Dr. Masfield as follows :—

- (b) The Clinic, The Shrubberies, 93, High Road, South Woodford, twice a month, *i.e.*, the first and third Tuesdays in the month at 3 p.m.
- (c) The Public Assistance Institution, Orsett, twice a month on the second and fourth Wednesdays in the month, at 2.30 p.m.

All medical practitioners in the County have been circularised of the dates and times of these five clinics and requested to take full advantage of the arrangements for the benefit of their patients.



## PART II.

### TUBERCULOSIS.

The County Tuberculosis Scheme is dealt with briefly below. A more elaborate and detailed report will follow in next year's quinquennial survey.

During 1934 the Scheme has developed along the lines of recent years, viz., the provision of facilities for consultation and diagnosis at dispensaries and elsewhere, of in-patient and out-patient treatment at our own and at other general or special Institutions, of domiciliary supervision, including the loan of shelters where required, and of supporting in their several areas the valuable work of the respective Tuberculosis Care Associations. The extension of X-Ray facilities continues, and while increased use of the skiagram means increased expenditure, the community is amply repaid, for the steady improvement in X-Ray technique and more experience in interpretation of films have led to earlier and to better differential diagnosis on which the success of all Tuberculosis Schemes for treatment and prevention is based.

There have been several changes in the personnel of the staff responsible for the working of the Scheme, the most noteworthy being the appointment of Dr. W. L. Yell, formerly Tuberculosis Officer for the Southern Area, as Senior Assistant County Medical Officer.

#### Notifications.

##### PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.

(a) A summary of the notifications made in the Administrative County of Essex during the period 1st January, 1934, to 31st December, 1934, is given below :—

**TABLE IX.**

|                      | FORMAL NOTIFICATIONS.                               |    |    |     |     |     |     |     |     |     |    |                     | Total<br>Notifica-<br>tions. |
|----------------------|-----------------------------------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|---------------------|------------------------------|
|                      | Primary Notifications of New Cases of Tuberculosis. |    |    |     |     |     |     |     |     |     |    |                     |                              |
|                      | Age Periods.                                        |    |    |     |     |     |     |     |     |     |    |                     |                              |
|                      | 0—                                                  | 1— | 5— | 10— | 15— | 20— | 25— | 35— | 45— | 55— | 65 | Total<br>(all ages) |                              |
| Pulmonary, Males     | 3                                                   | 5  | 7  | 10  | 52  | 94  | 194 | 135 | 111 | 66  | 17 | 694                 | 827                          |
| „ Females            | —                                                   | 6  | 9  | 17  | 64  | 86  | 149 | 85  | 44  | 27  | 9  | 496                 | 571                          |
| Non-Pulmonary, Males | 5                                                   | 38 | 54 | 57  | 17  | 15  | 20  | 13  | 7   | 3   | 1  | 250                 | 249                          |
| „ Females            | 3                                                   | 26 | 41 | 21  | 18  | 19  | 30  | 10  | 5   | 3   | —  | 179                 | 195                          |

(b) The following summary shows the new cases which came to the knowledge of the Medical Officers of Health during the above-mentioned period, otherwise than by formal notification :—



|                      | Age periods. |    |    |     |     |     |     |     |     |     |     | Total. |
|----------------------|--------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
|                      | 0—           | 1— | 5— | 10— | 15— | 20— | 25— | 35— | 45— | 55— | 65— |        |
| Pulmonary, Males     | 1            | 2  | 3  | 3   | 5   | 7   | 20  | 17  | 10  | 5   | 2   | 75     |
| „ Females            | —            | —  | 1  | 2   | 3   | 13  | 25  | 11  | 6   | 5   | 1   | 67     |
| Non-pulmonary, Males | 1            | 3  | —  | 3   | 3   | 3   | 3   | 1   | 1   | 1   | —   | 19     |
| „ Females            | 2            | 4  | 5  | 3   | —   | —   | 4   | —   | 1   | 2   | —   | 21     |

The sources from which information as to the above-mentioned cases was obtained are shown below.

| Source of Information.                                               | No. of Cases. |                |
|----------------------------------------------------------------------|---------------|----------------|
|                                                                      | Pulmonary.    | Non-Pulmonary. |
| Death Returns { from Local Registrars ... ..                         | 18            | 5              |
| { transferable deaths from Registrar-General ... ..                  | 6             | 4              |
| Posthumous Notifications ... ..                                      | 8             | 3              |
| “Transfers” from other areas (other than transferable deaths) ... .. | 91            | 26             |
| Other Sources (Forms I and II) ... ..                                | 19            | 2              |

**TABLE X.**

NOTIFICATION REGISTER.

|                                                                                                                                                                    | Pulmonary. |          |        | Non-pulmonary. |         |        | Total Cases. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|--------|----------------|---------|--------|--------------|
|                                                                                                                                                                    | Males      | Females. | Total. | Males          | Females | Total. |              |
| Number of cases of Tuberculosis remaining at the 31st December, 1934, on the Registers of Notifications kept by District Medical Officers of Health in the County. | 4110       | 3529     | 7639   | 1728           | 1627    | 3355   | 10,994       |
| Number of cases removed from the Registers during the year by reason <i>inter alia</i> of :—                                                                       |            |          |        |                |         |        |              |
| 1. Withdrawal of notification... ..                                                                                                                                | 35         | 26       | 61     | 23             | 16      | 39     | 100          |
| 2. Recovery from the disease... ..                                                                                                                                 | 73         | 80       | 153    | 60             | 73      | 133    | 286          |
| 3. Death ... ..                                                                                                                                                    | 380        | 257      | 637    | 41             | 40      | 81     | 718          |



**TABLE XI.**

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                         |
| 1927-31 | 1110                     | 1.00                         | 710     | 0.64                         | 382                         | 0.34                         | 141     | 0.13                         | 1492                      | 1.34                         | 851     | 0.77                         |
| 1932    | 1188                     | 0.96                         | 683     | 0.55                         | 425                         | 0.34                         | 165     | 0.13                         | 1613                      | 1.30                         | 848     | 0.68                         |
| 1933    | 1262                     | 0.99                         | 680     | 0.53                         | 453                         | 0.35                         | 135     | 0.11                         | 1715                      | 1.34                         | 815     | 0.64                         |
| 1934    | 1190                     | 0.92                         | 654     | 0.50                         | 409                         | 0.31                         | 114     | 0.09                         | 1599                      | 1.23                         | 768     | 0.59                         |

#### New Cases and Mortality during 1934.

The following table is supplied at the request of the Ministry of Health :—

**TABLE XII.**

| Age Periods.   | New Cases. |     |                |     | Deaths.    |     |                |    |
|----------------|------------|-----|----------------|-----|------------|-----|----------------|----|
|                | Pulmonary. |     | Non-pulmonary. |     | Pulmonary. |     | Non-pulmonary. |    |
|                | M.         | F.  | M.             | F.  | M.         | F.  | M.             | F. |
| 0— .. ..       | 4          | —   | 6              | 5   | 1          | —   | 7              | 7  |
| 1— .. ..       | 7          | 6   | 41             | 30  | 2          | 1   | 16             | 16 |
| 5— .. ..       | 10         | 10  | 54             | 49  | }          | 2   | 7              | 8  |
| 10— .. ..      | 13         | 19  | 60             | 24  |            |     |                | 6  |
| 15— .. ..      | 57         | 67  | 20             | 18  | }          | 47  | 62             | 5  |
| 20— .. ..      | 101        | 99  | 18             | 19  |            |     |                | 5  |
| 25— .. ..      | 214        | 174 | 23             | 34  | 85         | 85  | 10             | 6  |
| 35— .. ..      | 152        | 96  | 14             | 10  | 93         | 57  | 4              | 3  |
| 45— .. ..      | 121        | 50  | 8              | 6   | 79         | 31  | 4              | 3  |
| 55— .. ..      | 71         | 32  | 4              | 5   | 56         | 16  | 5              | 4  |
| 65 and upwards | 19         | 10  | 1              | —   | 16         | 14  | 2              | 3  |
|                | 769        | 563 | 249            | 200 | 381        | 273 | 61             | 53 |

The figures shown in Table XIII again reveal the fact that the notification of cases of Tuberculosis is still far from what it should be. Of 628 deaths from Tuberculosis, 128 cases were not notified at all, and 32 notified after death. Repetition of remarks made in previous reports would hardly appear necessary, but the opportunity is again taken of stressing the opinion that in many, if not all, of these unnotified cases action under the County Tuberculosis Scheme might (possibly) have helped either the patient or the relatives, or at any rate enabled the local sanitary authority to deal with the case from the point of view of preventing spread of infection.

From Table XI it will be observed with much satisfaction that both attack and death rates show a decrease for both pulmonary and non-pulmonary tuberculosis.



TABLE XIII.

SHOWING DEATHS FROM TUBERCULOSIS REGISTERED WITH LOCAL REGISTRARS OF BIRTHS AND DEATHS IN THE ADMINISTRATIVE COUNTY DURING 1934, AND PARTICULARS REGARDING NOTIFICATION UNDER THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS (*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. |                 |
| <b>Urban.</b>            |                |                |                           |                             |                              |                            |                            |                                 |                 |
| Barking B. ....          | 41             | ...            | 7                         | 3                           | 7                            | 9                          | 4                          | 5                               | 6               |
| Benfleet ... ..          | 4              | ...            | ...                       | 1                           | ...                          | ...                        | ...                        | 1                               | 2               |
| Billericay ... ..        | 19             | ...            | 2                         | ...                         | 2                            | ...                        | 3                          | 6                               | 6               |
| Braintree & Bocking ...  | 6              | 1              | 1                         | ...                         | ...                          | 1                          | 1                          | 1                               | 1               |
| Brentwood ... ..         | 10             | ...            | 2                         | ...                         | 2                            | 2                          | 1                          | 1                               | 2               |
| Brightlingsea ... ..     | 1              | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | ...                             | 1               |
| Burnham-on-Crouch ...    | 2              | ...            | ...                       | 1                           | ...                          | ...                        | ...                        | ...                             | 1               |
| Canvey Island ... ..     | 5              | 1              | 1                         | ...                         | 2                            | ...                        | ...                        | ...                             | 1               |
| Chelmsford B. ... ..     | 4              | ...            | ...                       | 1                           | ...                          | 2                          | ...                        | 1                               | ...             |
| Chigwell ... ..          | 4              | ...            | 2                         | 1                           | ...                          | ...                        | ...                        | ...                             | 1               |
| Chingford ... ..         | 9              | ...            | 2                         | ...                         | 1                            | 2                          | 1                          | 2                               | 1               |
| Clacton-on-Sea ... ..    | 8              | ...            | 3                         | ...                         | 2                            | ...                        | ...                        | 2                               | 1               |
| Colchester B. ... ..     | 33             | 2              | 5                         | 1                           | 4                            | 5                          | 7                          | 4                               | 5               |
| Dagenham ... ..          | 36             | 3              | 7                         | 2                           | 6                            | 3                          | 5                          | 2                               | 8               |
| Epping ... ..            | 4              | ...            | 1                         | ...                         | ...                          | 1                          | ...                        | ...                             | 2               |
| Frinton & Walton ... ..  | 3              | ...            | 1                         | ...                         | ...                          | ...                        | ...                        | ...                             | 2               |
| Grays ... ..             | 12             | ...            | 3                         | 1                           | 4                            | 1                          | 1                          | ...                             | 2               |
| Halstead ... ..          | 4              | ...            | ...                       | 1                           | ...                          | 1                          | ...                        | ...                             | 2               |
| Harwich B. ... ..        | 2              | ...            | ...                       | ...                         | ...                          | ...                        | 1                          | 1                               | ...             |
| Hornchurch ... ..        | 36             | 1              | 8                         | 3                           | 3                            | 4                          | 8                          | 1                               | 8               |
| Ilford B. ... ..         | 65             | 3              | 18                        | 6                           | 9                            | 8                          | 10                         | 6                               | 5               |
| Leyton B. ... ..         | 64             | 4              | 6                         | 1                           | 13                           | 10                         | 9                          | 13                              | 8               |
| Maldon B. ... ..         | 6              | ...            | 1                         | ...                         | 1                            | ...                        | ...                        | 2                               | 2               |
| Purfleet ... ..          | 5              | 1              | ...                       | ...                         | 1                            | ...                        | 1                          | 1                               | 1               |
| Rayleigh ... ..          | 4              | 1              | 1                         | 1                           | 1                            | ...                        | ...                        | ...                             | ...             |
| Romford ... ..           | 32             | 1              | 4                         | 2                           | 3                            | 5                          | 5                          | 2                               | 10              |
| Saffron Walden B. ...    | 2              | ...            | 1                         | ...                         | ...                          | ...                        | ...                        | ...                             | 1               |
| Tilbury ... ..           | 11             | 2              | 1                         | 2                           | 1                            | ...                        | 1                          | 1                               | 3               |
| Waltham Holy Cross ...   | 6              | ...            | ...                       | 1                           | 1                            | 1                          | 1                          | 1                               | 1               |
| Walthamstow B. ... ..    | 69             | 7              | 6                         | 4                           | 7                            | 13                         | 15                         | 8                               | 9               |
| Wanstead & Woodford ...  | 18             | 1              | 2                         | 1                           | 4                            | ...                        | 3                          | 5                               | 2               |
| West Mersea ... ..       | 1              | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | 1                               | ...             |
| Witham ... ..            | 2              | ...            | ...                       | 2                           | ...                          | ...                        | ...                        | ...                             | ...             |
| Wivenhoe ... ..          | ...            | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | ...                             | ...             |
| Totals ... ..            | 528            | 28             | 85                        | 35                          | 74                           | 68                         | 77                         | 67                              | 94              |
| <b>Rural.</b>            |                |                |                           |                             |                              |                            |                            |                                 |                 |
| Braintree ... ..         | 9              | ...            | 1                         | ...                         | 1                            | 1                          | 1                          | 2                               | 3               |
| Chelmsford ... ..        | 19             | 1              | 2                         | 1                           | 1                            | 2                          | ...                        | 3                               | 9               |
| Dunmow ... ..            | 4              | ...            | 2                         | ...                         | 2                            | ...                        | ...                        | ...                             | ...             |
| Epping ... ..            | 2              | ...            | ...                       | ...                         | 2                            | ...                        | ...                        | ...                             | ...             |
| Halstead ... ..          | 5              | ...            | ...                       | 1                           | 1                            | ...                        | 1                          | ...                             | 2               |
| Lexden & Winstree ...    | 18             | 1              | 2                         | 1                           | 4                            | ...                        | 1                          | 5                               | 4               |
| Maldon ... ..            | 4              | ...            | ...                       | ...                         | ...                          | ...                        | ...                        | ...                             | 4               |
| Ongar ... ..             | 7              | ...            | 1                         | 1                           | 1                            | 1                          | ...                        | ...                             | 3               |
| Orsett ... ..            | 8              | 2              | 1                         | ...                         | ...                          | 1                          | 2                          | 2                               | ...             |
| Rochford ... ..          | 8              | ...            | 1                         | 1                           | ...                          | 1                          | 1                          | 1                               | 3               |
| Saffron Walden ... ..    | 5              | ...            | ...                       | ...                         | ...                          | ...                        | 1                          | 2                               | 2               |
| Tendring ... ..          | 11             | ...            | ...                       | ...                         | 1                            | 2                          | 2                          | 2                               | 4               |
| Totals ... ..            | 100            | 4              | 10                        | 5                           | 13                           | 8                          | 9                          | 17                              | 34              |
| URBAN DISTRICTS ...      | 528            | 28             | 85                        | 35                          | 74                           | 68                         | 77                         | 67                              | 94              |
| RURAL DISTRICTS ...      | 100            | 4              | 10                        | 5                           | 13                           | 8                          | 9                          | 17                              | 34              |
| ADMINISTRATIVE COUNTY .. | 628            | 32             | 95                        | 40                          | 87                           | 76                         | 86                         | 84                              | 128             |



## Dispensaries.

Table XIV on page 65 gives statistical details of the work carried out at the dispensaries in the County during the year.

The following figures show a slight increase as compared with 1933 :—

|                                 |    |    | 1934. |    | 1933. |
|---------------------------------|----|----|-------|----|-------|
| New cases examined              | .. | .. | 2,564 | .. | 2,520 |
| (excluding contacts)            |    |    |       |    |       |
| Contacts                        | .. | .. | 1,075 | .. | 934   |
| X-Ray examinations              | .. | .. | 2,256 | .. | 1,617 |
| No. of cases on County Register |    | .. | 4,999 | .. | 4,889 |

The X-Ray photograph is becoming more and more an invaluable part of the examination of a patient, particularly in those cases which, from a physical examination alone, leave the examiner in doubt. The number of X-Ray photographs taken will naturally tend to increase. Authority has been given for the purchase of an X-Ray apparatus for use at the Walthamstow Dispensary and the adjacent areas, and this was brought into use on the 27th March, 1935.

Authority has also been given to the purchase of a Portable X-Ray outfit for use by Dr. Yell in those outlying districts where patients find it difficult to attend the special clinics held by Dr. Burton Wood, the County Consulting Physician for Pulmonary Tuberculosis, at the Black Notley Sanatorium and Victoria Park Hospital, London.

No new dispensaries were opened during 1934, but notice was given to terminate the use of the Vange Visiting Station at the end of 1934, as, from January, 1935, the new Combined Treatment Centre at Pitsea will serve this area for the purposes of the County Tuberculosis Scheme.

## Institutional Treatment.

Tables XV and XVI on pages 66 to 68 give particulars of the extent of Institutional Treatment provided during the year. An average number of 600 beds was provided for in the estimates 1934/35, but the demand for beds was so heavy during the whole of the year that it was necessary to obtain the Council's sanction to the average number of beds for the year being increased to 625.

With the accommodation available, the selection of cases so that the best use may be made of sanatorium treatment still requires careful consideration. Whilst the early case and the advanced case must receive prior consideration, the claims of the case in the intermediate stage of the disease deserve sympathetic attention. In these patients, whilst recovery may be out of the question, considerable benefit often follows a short stay in sanatorium, and impresses the value of hygiene, rest and fresh air, and the importance of the necessary steps to avoid "spreading" the disease to others. When the additional accommodation which is being provided at Black Notley (an extension from 192 to 300 beds) and at Broomfield Court (300 beds) becomes available, provision for this class of patient will be adequate.







TABLE XV.

(a) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT AND OBSERVATION DURING THE YEAR 1934 IN INSTITUTIONS (OTHER THAN PUBLIC ASSISTANCE INSTITUTIONS)

|                                                                         |                  | In Institu-<br>tions on<br>Jan. 1st.<br>(1) | Admitted<br>during<br>the year.<br>(2) | Discharged<br>during<br>the year.<br>(3) | Died in<br>the Insti-<br>tions.<br>(4) | In Institu-<br>tions on<br>Dec. 31st.<br>(5) |
|-------------------------------------------------------------------------|------------------|---------------------------------------------|----------------------------------------|------------------------------------------|----------------------------------------|----------------------------------------------|
| Number of doubtfully<br>tuberculous cases ad-<br>mitted for observation | Adult<br>males   | —                                           | 41                                     | 36                                       | 1                                      | 4                                            |
|                                                                         | Adult<br>females | 1                                           | 30                                     | 27                                       | —                                      | 4                                            |
|                                                                         | Children         | 7                                           | 71                                     | 66                                       | —                                      | 12                                           |
|                                                                         | Total            | 8                                           | 142                                    | 129                                      | 1                                      | 20                                           |
| Number of patients<br>suffering from pulmon-<br>ary tuberculous         | Adult<br>males   | 196                                         | 392                                    | 280                                      | 63                                     | 245                                          |
|                                                                         | Adult<br>females | 139                                         | 218                                    | 197                                      | 14                                     | 146                                          |
|                                                                         | Children         | 22                                          | 15                                     | 24                                       | —                                      | 13                                           |
|                                                                         | Total            | 357                                         | 625                                    | 501                                      | 77                                     | 404                                          |
| Number of patients<br>suffering from non-<br>pulmonary tuberculosis     | Adult<br>males   | 31                                          | 50                                     | 45                                       | 1                                      | 35                                           |
|                                                                         | Adult<br>females | 35                                          | 34                                     | 36                                       | 1                                      | 32                                           |
|                                                                         | Children         | 105                                         | 122                                    | 115                                      | 2                                      | 110                                          |
|                                                                         | Total            | 171                                         | 206                                    | 196                                      | 4                                      | 177                                          |
| GRAND TOTAL .. ..                                                       |                  | 536                                         | 973                                    | 826                                      | 82                                     | 601                                          |



(b) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT PROVIDED DURING THE YEAR 1934 IN PUBLIC ASSISTANCE INSTITUTIONS.

|                                                                      |                  | In Institu-<br>tions on<br>Jan. 1st.<br>(1) | Admitted<br>during<br>the year.<br>(2) | Discharged<br>during<br>the year.<br>(3) | Died in<br>the Insti-<br>tions.<br>(4) | In Institu-<br>tions on<br>Dec. 31st.<br>(5) |
|----------------------------------------------------------------------|------------------|---------------------------------------------|----------------------------------------|------------------------------------------|----------------------------------------|----------------------------------------------|
| Number of patients<br>suffering from pulmon-<br>ary tuberculosis     | Adult<br>males   | 50                                          | 158                                    | 101                                      | 51                                     | 56                                           |
|                                                                      | Adult<br>females | 44                                          | 149                                    | 101                                      | 49                                     | 43                                           |
|                                                                      | Children         | —                                           | 6                                      | 2                                        | 3                                      | 1                                            |
|                                                                      | Total            | 94                                          | 313                                    | 204                                      | 103                                    | 100                                          |
| Number of patients<br>suffering from non-pul-<br>monary tuberculosis | Adult<br>males   | 11                                          | 9                                      | 4                                        | 4                                      | 12                                           |
|                                                                      | Adult<br>females | 18                                          | 16                                     | 14                                       | 3                                      | 17                                           |
|                                                                      | Children         | 5                                           | 13                                     | 6                                        | 3                                      | 9                                            |
|                                                                      | Total            | 34                                          | 38                                     | 24                                       | 10                                     | 38                                           |
| GRAND TOTAL .. ..                                                    |                  | 128                                         | 351*                                   | 228                                      | 113                                    | 138                                          |

\*Of this number 52 were admitted under the County Tuberculosis Scheme and therefore chargeable to the Public Health Committee.

(c) SHOWING THE RESULTS OF OBSERVATION OF DOUBTFULLY TUBERCULOUS CASES DISCHARGED FROM INSTITUTIONS DURING 1934.

| Diagnosis on<br>discharge<br>from observation. | FOR PULMONARY<br>TUBERCULOSIS. |    |     |                       |    |     | FOR NON-PULMONARY<br>TUBERCULOSIS. |    |     |                       |    |     | TOTALS. |    |     |
|------------------------------------------------|--------------------------------|----|-----|-----------------------|----|-----|------------------------------------|----|-----|-----------------------|----|-----|---------|----|-----|
|                                                | Stay under<br>4 weeks.         |    |     | Stay over<br>4 weeks. |    |     | Stay under<br>4 weeks.             |    |     | Stay over<br>4 weeks. |    |     |         |    |     |
|                                                | M.                             | F. | Ch. | M.                    | F. | Ch. | M.                                 | F. | Ch. | M.                    | F. | Ch. | M.      | F. | Ch. |
| Tuberculous .. ..                              | 1                              | 2  | 1   | 9                     | 4  | 6   | —                                  | 1  | 1   | —                     | 2  | 4   | 10      | 9  | 12  |
| Non-tuberculous ..                             | 10                             | 5  | 7   | 6                     | 6  | 9   | 3                                  | —  | 2   | 4                     | 5  | 35  | 23      | 16 | 53  |
| Doubtful .. ..                                 | 3                              | 2  | —   | —                     | —  | —   | —                                  | —  | 1   | —                     | —  | —   | 3       | 2  | 1   |
| Died .. ..                                     | 1                              | —  | —   | —                     | —  | —   | —                                  | —  | —   | —                     | —  | —   | 1       | —  | —   |
| TOTALS .. ..                                   | 15                             | 9  | 8   | 15                    | 10 | 15  | 3                                  | 1  | 4   | 4                     | 7  | 39  | 37      | 27 | 66  |



TABLE XVI.

SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF DEFINITELY  
TUBERCULOUS PATIENTS DISCHARGED FROM INSTITUTIONS DURING  
THE YEAR, 1934.

| Classification on admission to the Institution. | Condition at time of discharge. | Duration of Residential Treatment in the Institution. |                     |     |             |     |     |              |     |     |                      |     |     |         |     |     | GRAND TOTALS. |     |     |
|-------------------------------------------------|---------------------------------|-------------------------------------------------------|---------------------|-----|-------------|-----|-----|--------------|-----|-----|----------------------|-----|-----|---------|-----|-----|---------------|-----|-----|
|                                                 |                                 | Under 3 months but exceeding 28 days.                 |                     |     | 3-6 months. |     |     | 6-12 months. |     |     | More than 12 months. |     |     | TOTALS. |     |     |               |     |     |
|                                                 |                                 | M.                                                    | F.                  | Ch. | M.          | F.  | Ch. | M.           | F.  | Ch. | M.                   | F.  | Ch. | M.      | F.  | Ch. |               |     |     |
| PULMONARY TUBERCULOSIS.                         |                                 | Class T. B. minus.                                    | Quiescent ...       | 21  | 19          | 1   | 25  | 10           | 5   | 11  | 14                   | 5   | 5   | 9       | 6   | 62  | 52            | 17  | 131 |
|                                                 |                                 |                                                       | Not quiescent ...   | 13  | 4           | ... | 8   | 8            | 1   | 3   | 6                    | 1   | 3   | 2       | ... | 27  | 20            | 2   | 49  |
|                                                 |                                 |                                                       | Died in Institution | 6   | 4           | ... | 2   | ...          | ... | ... | ...                  | ... | ... | 1       | ... | 8   | 5             | ... | 13  |
|                                                 |                                 | Class T. B. plus. Group 1.                            | Quiescent ...       | 1   | 5           | ... | 5   | 1            | ... | 3   | 2                    | ... | ... | 4       | 1   | 9   | 12            | 1   | 22  |
|                                                 |                                 |                                                       | Not quiescent ...   | 5   | 2           | ... | 1   | 1            | ... | 3   | 1                    | ... | 2   | 2       | ... | 11  | 6             | ... | 17  |
|                                                 |                                 |                                                       | Died in Institution | ... | ...         | ... | 1   | 1            | ... | 1   | ...                  | ... | ... | ...     | ... | 2   | 1             | ... | 3   |
|                                                 |                                 | Class T. B. plus. Group 2.                            | Quiescent ...       | 8   | 15          | ... | 16  | 7            | ... | 22  | 7                    | ... | 3   | 11      | 1   | 49  | 40            | 1   | 90  |
|                                                 |                                 |                                                       | Not quiescent ...   | 20  | 9           | 1   | 35  | 23           | 1   | 26  | 14                   | ... | 7   | 7       | ... | 88  | 53            | 2   | 143 |
|                                                 |                                 |                                                       | Died in Institution | 13  | 2           | ... | 18  | 2            | ... | 8   | 3                    | ... | 7   | ...     | ... | 46  | 7             | ... | 53  |
|                                                 |                                 | Class T. B. plus. Group 3.                            | Quiescent ..        | 2   | ...         | ... | ... | 1            | ... | ... | 1                    | ... | ... | 1       | ... | 2   | 3             | ... | 5   |
|                                                 |                                 |                                                       | Not quiescent ...   | 2   | ...         | ... | 2   | ...          | ... | 2   | ...                  | ... | 1   | ...     | ... | 7   | ...           | ... | 7   |
|                                                 |                                 |                                                       | Died in Institution | 3   | ...         | ... | 3   | 1            | ... | ... | ...                  | ... | 1   | ...     | ... | 7   | 1             | ... | 8   |
| TOTALS (pulmonary) ...                          |                                 |                                                       | 94                  | 60  | 2           | 116 | 55  | 7            | 79  | 48  | 6                    | 29  | 37  | 8       | 318 | 200 | 23            | 541 |     |
| NON-PULMONARY TUBERCULOSIS.                     |                                 | Bones and Joints.                                     | Quiescent ...       | 2   | 2           | 3   | 6   | 3            | 7   | 6   | 3                    | 7   | 3   | 5       | 13  | 17  | 13            | 30  | 60  |
|                                                 |                                 |                                                       | Not quiescent ...   | 1   | ...         | 1   | 2   | ...          | ... | ... | 1                    | ... | 1   | 2       | ... | 4   | 3             | 1   | 8   |
|                                                 |                                 |                                                       | Died in Institution | ... | ...         | ... | 1   | ...          | ... | ... | ...                  | ... | ... | 1       | 1   | 1   | 1             | 1   | 3   |
|                                                 |                                 | Abdominal.                                            | Quiescent ...       | 1   | 2           | 1   | ... | 3            | 2   | ... | 3                    | 3   | ... | ...     | 1   | 1   | 8             | 7   | 16  |
|                                                 |                                 |                                                       | Not quiescent ...   | ... | ...         | 1   | ... | 1            | ... | 1   | ...                  | ... | ... | ...     | ... | 1   | 1             | 1   | 3   |
|                                                 |                                 |                                                       | Died in Institution | ... | ...         | ... | ... | ...          | ... | ... | ...                  | ... | ... | ...     | ... | ... | ...           | ... | ... |
|                                                 |                                 | Other Organs.                                         | Quiescent ...       | 2   | ...         | ... | 1   | 1            | ... | 2   | 1                    | ... | 1   | 1       | ... | 6   | 3             | ... | 9   |
|                                                 |                                 |                                                       | Not quiescent ...   | ... | ...         | ... | ... | 1            | ... | ... | 1                    | ... | ... | ...     | ... | ... | 2             | ... | 2   |
|                                                 |                                 |                                                       | Died in Institution | ... | ...         | ... | ... | ...          | ... | ... | ...                  | ... | ... | ...     | ... | ... | ...           | ... | ... |
|                                                 |                                 | Peri-pheral Glands.                                   | Quiescent ...       | 1   | 3           | 20  | 1   | 3            | 22  | 3   | ...                  | 12  | ... | ...     | 6   | 5   | 6             | 60  | 71  |
|                                                 |                                 |                                                       | Not quiescent ...   | ... | ...         | ... | ... | ...          | 3   | ... | ...                  | 3   | ... | ...     | 2   | ... | ...           | 8   | 8   |
|                                                 |                                 |                                                       | Died in Institution | ... | ...         | ... | ... | ...          | ... | ... | ...                  | 1   | ... | ...     | ... | ... | ...           | 1   | 1   |
| TOTALS (non-pulmonary) ...                      |                                 |                                                       | 7                   | 7   | 26          | 11  | 12  | 34           | 12  | 9   | 26                   | 5   | 9   | 23      | 35  | 37  | 109           | 181 |     |



## (1) COUNTY SANATORIA.

(a) BLACK NOTLEY SANATORIUM. By the erection of two additional shelters in the Male Surgical Section of the Sanatorium, the total accommodation available was increased from 188 to 192 beds.

The following is a report by Dr. M. C. Wilkinson, the Medical Superintendent of the Sanatorium :—

“ During the year 1934 the work of the Sanatorium proceeded satisfactorily. Few new developments occurred, as all forms of diagnosis and treatment, suitable for the types of case admitted, were already available. It can be said, however, that, under the direction of the County Medical Officer, increasing use is being made of the existing facilities, especially in the provision for out-patient attendances, with the co-operation of Mr. R. Reid, M.S., F.R.C.S., in the operative work.

*Treatment of Pulmonary Tuberculosis.* (Consulting Physician—Dr. W. Burton Wood).

*Discharges.*

| Year. |    | Total. | 14-28 age group. |
|-------|----|--------|------------------|
| 1934  | .. | 118    | .. 75% (89)      |
| 1933  | .. | 192    | .. 45%           |
| 1932  | .. | 169    | .. 47%           |
| 1931  | .. | 186    | .. 50%           |

Of the 89 patients in the 14-28 age group discharged in 1934, 55 were discharged with the disease quiescent. I have been informed by Dr. Burton Wood that the immediate and subsequent results of treatment of this age group have exceeded his expectations. It can be seen that the thorough treatment of adolescents and young adults which have the highest mortality from Tuberculosis, remains the chief function of the pulmonary section of the Sanatorium. In addition, thirty-three children were discharged who had been admitted for various forms of intrathoracic tuberculous disease or for observation. Of this number, seven were suffering from pulmonary lesions.

Prolonged rest, with collapse therapy where necessary, is our sheet anchor, and graduated exercise is only introduced when the disease is becoming quiescent. Gold injections in the form of Sanocrysin and Solganal have been increasingly used. The routine use of the blood sedimentation test has been found to be of assistance in assessing progress.

*Special Treatments.*(1) *Artificial Pneumothorax.*

|                       |    |    |    |     |
|-----------------------|----|----|----|-----|
| Cases ..              | .. | .. | .. | 51  |
| Inductions ..         | .. | .. | .. | 33  |
| In-Patient refills .. | .. | .. | .. | 779 |
| Out-Patient refills   | .. | .. | .. | 194 |

(2) *Phrenic Evulsions.* 18 cases.



(3) *Gold Salts.* 39 cases.

Major chest surgery was not carried out at the Institution, but provision exists for the transfer of such cases to Victoria Park Hospital for operation. One case was transferred to Victoria Park Hospital for Thoracoplasty during the year.

*Non-Pulmonary Tuberculosis.* (Consulting Surgeons : Sir Henry Gauvain and Mr. R. Reid).

|                 |    |    | Discharged<br>during 1934. |
|-----------------|----|----|----------------------------|
| Bone and Joint  | .. | .. | 54                         |
| Abdominal       | .. | .. | 13                         |
| Genito-Urinary  | .. | .. | 8                          |
| Cervical Glands | .. | .. | 23                         |
| Skin            | .. | .. | 3                          |
| Non-Tuberculous | .. | .. | 21                         |

Of the hundred and one cases with disease present, seventy-nine were discharged as quiescent.

Considerable improvement in the facilities for open-air treatment were effected in 1934 by re-building the verandahs of the surgical wards.

In the course of treatment, 160 plaster splints were applied and 33 celluloid splints were made in the sanatorium.

Excluding *tabes mesenterica*, the cases of abdominal tuberculosis (mainly women) admitted to the Sanatorium are usually fairly advanced. With prolonged rest in bed, tuberculin and light therapy, the results are satisfactory. The majority of patients have had a laparotomy before admission to the Sanatorium. Differential diagnosis without laparotomy often presents difficulties, and in its absence, tuberculin tests, Triboulet's test, the blood sedimentation rate and radiographs of the intestinal tract after a barium meal have been employed.

With Mr. Reid's co-operation, full investigation and treatment of cases of genito-urinary tuberculosis is now carried out at the Sanatorium—special urine examinations being done at the Counties Laboratory. It is well known that the prognosis in this disease is better if operation can be followed by Sanatorium treatment. It appears probable therefore, that if the whole treatment, including operation, can be carried out under Sanatorium conditions, the results are likely to be improved. Thus, at Black Notley, although many cases of genito-urinary tuberculosis are admitted as inoperable, it has been found that a proportion of these improve sufficiently for operation to be carried out.

The treatment of tuberculous glands of the neck has also been assisted by excision of the glands, which do not subside under conservative treatment. It is noteworthy that under Sanatorium conditions it is rarely that the wound fails to heal by first intention. In addition to operation, Sanatorium treatment is given for a sufficient length of time to prevent the possibility of relapse.



*Operations performed in 1934.*

|                           |    |    |                 |
|---------------------------|----|----|-----------------|
| For sinus or abscess      | .. | .. | 31              |
| Bone operations           | .. | .. | 7               |
| Phrenic evulsion          | .. | .. | 18              |
| Cystoscopies              | .. | .. | 21              |
| Genito-urinary operations | .. | .. | 5               |
| For tuberculous glands    | .. | .. | 21              |
| Tonsillectomy             | .. | .. | 5               |
| Synovectomy               | .. | .. | 4               |
| Appendicectomy            | .. | .. | 2               |
| Various                   | .. | .. | 16              |
|                           |    |    | <hr/> 130 <hr/> |

In October, 1934, Dr. R. B. Sutcliffe was appointed visiting anæsthetist to the Sanatorium.

*X-Ray Department.* (Consulting Radiologist : Dr. Franklin Wood). The work in this department has been maintained at a high standard. A stabiliser was installed in 1934 to counteract fluctuations in mains voltage. In addition to chest and bone work, barium meals and pyelography are increasingly employed.

The following are particulars of the work done :—

|                            |    |    |       |
|----------------------------|----|----|-------|
| Patients X-Rayed           | .. | .. | 1,740 |
| Total number of radiograms | .. | .. | 2,700 |

A considerable number of screen examinations were carried out.

*Artificial Light Treatment.* (Consulting Physician : Dr. A. Burrows). The artificial light treatment department has been used to its full capacity as an accessory to the treatment of non-pulmonary patients. A small number of out-patients, suffering from lupus, have also been treated. Dr. Burrows' visits are further appreciated in that his advice becomes available for non-tuberculous skin conditions which inevitably crop up in a large institution.

The following shows the types and number of treatments given :—

|                           |    |    |                   |
|---------------------------|----|----|-------------------|
| Mercury Vapour treatments | .. | .. | 1,861             |
| Carbon Arc treatments     | .. | .. | 1,779             |
| Kromayer Lamp treatments  | .. | .. | 474               |
| Infra Red Rays treatments | .. | .. | 107               |
|                           |    |    | <hr/> 4,221 <hr/> |

*Laboratory.* Routine laboratory examinations at the Sanatorium :—

|                                |    |    |     |
|--------------------------------|----|----|-----|
| Sputa                          | .. | .. | 771 |
| Urines—Bacteriological         | .. | .. | 59  |
| Urines—Chemical                | .. | .. | 80  |
| Blood Sedimentation Rate Tests | .. | .. | 355 |



|                      |       |
|----------------------|-------|
| Fæces .. .. .        | 16    |
| Blood Counts .. .. . | 10    |
| Various .. .. .      | 4     |
|                      | <hr/> |
|                      | 1,295 |
|                      | <hr/> |

In addition a considerable number of specimens have been forwarded to the Counties Public Health Laboratory for examination.

*Patients Discharged from January 1st, 1934 to December 31st, 1934.*

*Pulmonary Adults.*

|                              | Quiescent. | Improved. | Not Improved. |
|------------------------------|------------|-----------|---------------|
| Pulmonary Tuberculosis, ages |            |           |               |
| between 14-28 years ..       | 55         | 18        | 16            |
| Pulmonary Tuberculosis, over |            |           |               |
| 28 years .. .. .             | 15         | 6         | 4             |
| Observation cases discharged |            |           |               |
| as negative .. .. .          | 4          | 0         | 0             |

*Children under 14 years.*

|                              |       |       |       |
|------------------------------|-------|-------|-------|
| Pulmonary Tuberculosis ..    | 3     | 1     | 3     |
| Observation cases discharged |       |       |       |
| as negative .. .. .          | 16    | 0     | 0     |
| Tuberculous Pleurisy ..      | 7     | 0     | 0     |
| Hilum Tuberculosis ..        | 2     | 0     | 0     |
| Epituberculosis ..           | 1     | 0     | 0     |
|                              | <hr/> | <hr/> | <hr/> |
|                              | 103   | 25    | 23    |

Total .. 151

*Non-Pulmonary.—Adults.*

|                            | Quiescent. | Improved. | Not Improved. |
|----------------------------|------------|-----------|---------------|
| Adenitis .. .. .           | 8          | 0         | 0             |
| Peritonitis .. .. .        | 6          | 1         | 0             |
| Spine .. .. .              | 12         | 1         | 2             |
| Hip .. .. .                | 3          | 1         | 0             |
| Knee .. .. .               | 0          | 0         | 1             |
| Sacro-iliac .. .. .        | 3          | 0         | 0             |
| Various .. .. .            | 3          | 1         | 1             |
| Multiple lesions ..        | 4          | 1         | 0             |
| Genito-urinary ..          | 2          | 3         | 3             |
| Lupus .. .. .              | 1          | 1         | 0             |
| Observation discharged as  |            |           |               |
| negative .. .. .           | 9          | 0         | 0             |
| Admitted as Tuberculous—   |            |           |               |
| diagnosis not confirmed .. | 2          | 0         | 0             |
|                            | <hr/>      | <hr/>     | <hr/>         |
|                            | 53         | 9         | 7             |
|                            | <hr/>      | <hr/>     | <hr/>         |
| Total ..                   |            |           | 69            |



*Non-Pulmonary—Children.*

|                                                |    |    | Quiescent. |    | Improved. |    | Not Improved. |
|------------------------------------------------|----|----|------------|----|-----------|----|---------------|
| Adenitis                                       | .. | .. | 14         | .. | 1         | .. | 0             |
| Peritonitis                                    | .. | .. | 3          | .. | 0         | .. | 3             |
| Spine                                          | .. | .. | 4          | .. | 0         | .. | 0             |
| Hip ..                                         | .. | .. | 5          | .. | 2         | .. | 0             |
| Knee                                           | .. | .. | 4          | .. | 0         | .. | 0             |
| Mixed                                          | .. | .. | 2          | .. | 0         | .. | 0             |
| Lupus                                          | .. | .. | 1          | .. | 0         | .. | 0             |
| Various                                        | .. | .. | 4          | .. | 0         | .. | 1             |
| Observation discharged as                      |    |    |            |    |           |    |               |
| negative                                       | .. | .. | 8          | .. | 0         | .. | 0             |
| Admitted as Tuberculous—                       |    |    |            |    |           |    |               |
| diagnosis not confirmed                        | .. |    | 2          | .. | 0         | .. | 0             |
|                                                |    |    | 47         | .. | 3         | .. | 4             |
|                                                |    |    | Total      | .. |           |    | 54            |
| Total number of Pulmonary Cases Discharged     | .. |    |            |    |           |    | 151           |
| Total number of Non-Pulmonary Cases Discharged |    |    |            |    |           |    | 122           |
|                                                |    |    |            |    |           |    |               |
| Total number of Patients Discharged            | .. |    |            |    |           |    | 273           |

In regard to the dental treatment carried out at this Sanatorium during the year, the following report by Mr. S. K. Donaldson, the County Dental Surgeon, who visits the Sanatorium, gives some indication of the type of work done and the difficulties encountered :—

“ Many more dental operations have been performed than in previous years, making, I am sure, for the increased comfort of the patients and a contribution towards their return to health.

Unfortunately when I commenced duty the patients were inclined to regard dental treatment as unnecessary, and in many cases flatly refused treatment. Happily it is now otherwise, and they have come to regard dentistry as part of the routine treatment.

I inspect each patient admitted, advising the nature of treatment necessary, and obtain a written consent when the patients are nervous before giving treatment. Also, the advice of the Medical Officer is considered as to the fitness of the patient. Of the 192 patients who were in the Sanatorium at the beginning of 1934, 15 were still awaiting treatment and during 1934 278 new cases were inspected. Of them, 230 were found to be in need of treatment and 215 received treatment. A detail of the work being 96 filling cases and 134 extraction cases, of which latter 64 were treated under gas and oxygen anæsthetics ; the remainder under local.

I do not think there can be any doubt regarding the worth of treatment to these people (but to proportion its value to other systematic treatment is,



of course, impossible). Certainly in some cases when extensive caries and sepsis is present the change in the patient after extractions has been indeed remarkable, whilst in those cases where pain of dental origin is present, I do not think it too much to say treatment of any description is futile until the pain is removed.

Unfortunately the rate of work is much slowed down by the physical condition of the patients, consequently the output is not so great as in normal patients. These people I find are extremely nervous of treatment, and one must deal very cautiously with them to prevent any extensive upset. Furthermore, with the rest periods, which are part of the general treatment, and the enforced idleness, they are inclined to magnify any slight discomfort which may arise after treatment, in some cases to the extent of a rise in temperature.

In 16 cases dentures to replace extractions were recommended, of which number 9 were fitted. This also I feel was of decided benefit to the patients, and I am sure will be taken greater advantage of in time to come."

(b) HAROLD COURT SANATORIUM. Despite the increase in the number of beds occupied in outside Institutions, a considerable waiting list persisted throughout the year for the 70 male pulmonary beds at this Sanatorium. There is no doubt that the provision of adequate accommodation for male pulmonary cases at Broomfield Court will meet a very real need and greatly enhance the value of the County Tuberculosis Scheme. Dr. J. S. Harper, Medical Officer at the Sanatorium, reports as follows on the work done during the year :—

|                                                   |    |     |
|---------------------------------------------------|----|-----|
| "Total No. of patients discharged during the year | .. | 149 |
| Discharged home after a period of treatment       | .. | 96  |
| Died                                              | .. | 1   |
| Transferred to Ilford Sanatorium                  | .. | 13  |
| "    City of London Hospital                      | .. | 10  |
| "    Royal National Sanatorium, Bournemouth       | .. | 9   |
| "    British Legion Village, Preston Hall         | .. | 9   |
| "    Burrow Hill Colony                           | .. | 4   |
| "    Papworth Hall Colony                         | .. | 2   |
| "    Oldchurch Hospital                           | .. | 2   |
| "    London Fever Hospital, Liverpool Road        | .. | 1   |
| "    Lord Mayor Treloar's Hospital, Alton         | .. | 1   |
| "    Colchester Sanatorium                        | .. | 1   |
|                                                   | —  | 149 |
| Patients admitted during the year                 | .. | 149 |

The work of the Sanatorium has been continued along similar lines of recent years.

The X-Ray apparatus is now in full working order, and is of very great assistance in the diagnosis and treatment of patients.

*Treatment.* Suitable cases are treated by artificial pneumothorax, or extended rest. Cases which will not benefit from prolonged Sanatorium



treatment are given a short Educational Course, which not only enables them to make the best of their invalid lives on return home, but is a valuable Public Health measure in making them realise how best to limit their infectivity.

During the year 53 patients received 795 artificial pneumothorax refills.

Of these 53 cases, 20 were carried over from the previous year, 20 cases were induced at Harold Court and 13 had artificial pneumothorax before admission.

*Aurotherapy.* 11 patients received Sanocrysin treatment, and were given a total of 89 intravenous injections.

14 patients received Solganal B treatment, and were given a total of 347 intramuscular injections.

426 X-Rays have been taken with the new apparatus during the year. Of these, 116 were Out-Patients from Ilford Sanatorium and the surrounding Tuberculosis Dispensaries."

Dr. Harper commenced duty at Harold Court on the 1st September, 1931, and left on the 31st March, 1935, upon taking up duty as County Tuberculosis Officer for Wiltshire.

I wish to place on record the appreciation of the Committee and myself of the work done by Dr. Harper during his tenure of office at the Sanatorium. He consolidated the work to a remarkable extent, and there is no doubt that considerable improvements in the general working of the Sanatorium were effected as a result of his devotion to duty.

(c) **HIGH BEECH SANATORIUM.** This Sanatorium has continued to be used for 32 children suffering from glandular tuberculosis and for certain other non-pulmonary cases requiring only convalescence. In respect to the latter type of case, it has been possible to transfer from the Black Notley Sanatorium to the High Beech Sanatorium, children who, though not requiring active treatment, still needed institutional care and thereby releasing valuable beds at Black Notley for children needing active treatment.

Dr. L. S. Fry, the Medical Officer in charge of this Sanatorium, has supplied the following report :—

"During 1934, 104 new cases were admitted to the Sanatorium and 101 discharged (including 1 death from tuberculous broncho-pneumonia).

*Classification of New Cases.*

|                                 |    |    |       |
|---------------------------------|----|----|-------|
| Tuberculosis of cervical glands | .. | .. | 69    |
| „ abdominal glands              | .. | .. | 11    |
| „ bones and joints              | .. | .. | 12    |
| Observation cases               | .. | .. | 12    |
|                                 |    |    | <hr/> |
|                                 |    |    | 104   |
|                                 |    |    | <hr/> |



Apart from 3 cases of measles and 3 of scarlet fever, the Sanatorium remained free from infectious disease throughout the year. Measles broke out in the small children's ward in the early part of the year and the administration of convalescent serum to 3, and adult serum to 2, contacts, who had not had the disease may have prevented an epidemic, as no further cases occurred.

The Schick test was carried out as a routine on nearly all children admitted and those giving a positive reaction were immunised with T.A.M. or alum toxoid.

#### *Diphtheria Immunisation.*

Total No. Schick tested 79—positive 63—negative 16.

|                                                     |    |    |      |
|-----------------------------------------------------|----|----|------|
| Immunised with 3 weekly doses of T.A.M.             | .. | .. | 32   |
| Schick negative before discharge                    | .. | .. | 15   |
| Final Schick positive                               | .. | .. | 1    |
| Discharged before final Schick test                 | .. | .. | 16   |
|                                                     |    |    | — 32 |
| Immunised with Alum Toxoid $\frac{1}{2}$ —1cc doses | .. | .. | 34   |
| Schick negative after 1 or 2 doses                  | .. | .. | 22   |
| Discharged before final Schick test                 | .. | .. | 12   |
|                                                     |    |    | — 34 |

The Mantoux test in series was performed on all cases sent in for observation or in which the diagnosis appeared doubtful. Total number of cases tested 28—positive 12—negative (3 dilutions) 16."

#### INSTITUTIONS UNDER AGREEMENT.

The beds in the specially provided pavilions at the Sanatoria at Ilford (20 beds for males), Chingford (20 beds for females), and Colchester (12 beds for females and 6 for Hospital cases, male or female), continued to provide satisfactory accommodation for patients in the intermediate and moderately advanced stage of the disease.

#### INSTITUTIONS NOT UNDER AGREEMENT.

During 1934 an average number of 270 beds was kept occupied in institutions not belonging to the County Council or under agreement with the County Council. The majority of these beds were at the Liverpool Road Hospital, Victoria Park Hospital, Preston Hall Sanatorium, Papworth Hall Colony, Alton Hospital, Bournemouth Sanatorium and Ventnor Sanatorium.

#### TUBERCULOSIS CARE ASSOCIATIONS.

Table XVII on page 77 shows the work carried out by the Care Associations during the year, and it is a pleasure to record again the valuable work performed by these voluntary associations despite the almost insurmountable difficulties connected with the raising of funds.

During the year the County Council allowed a special grant of £50 to be administered by the Chelmsford Care Association and to be expended on patients living in those areas in the County not served by a Care Association.



TABLE XVII.

## TUBERCULOSIS CARE ASSOCIATIONS IN ESSEX.

(The information given in this Table is in respect to the year ended 31st March, 1935).

| 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 Monday in each month at 8 p.m.                   | £ s. d.<br>341 13 6                                            | £ s. d.<br>253 14 0 | £ s. d.<br>6 4 2 | 50                           | Extra Nourishment<br>Clothing                                                                                            |
| CHELMSFORD ...       | Fourth Monday in each month at 7 p.m. (except August)  | No. 1 a/c.<br>394 18 6<br>*No. 2 a/c.<br>61 0 0                | 191 0 10<br>25 8 3  | 39 12 7<br>10 0  | 43                           | Extra Nourishment<br>Convalescent Holiday<br>Treatment<br>Boots, Shoes, Bedding, &c.<br>Fares                            |
| DAGENHAM ...         | Third Thursday in each month at 8.15 p.m.              | 577 12 0                                                       | 522 12 3            | 31 1 8           | 66                           | Extra Nourishment<br>Convalescent Home<br>Treatment<br>Boarding-out expenses<br>Bed and Bedding<br>Surgical appliance    |
| GRAYS ...            | Third Monday in each month at 5.30 p.m.                | 360 2 1                                                        | 220 14 2            | 15 3 9           | 38                           | Extra Nourishment<br>Clothing, Bedding, &c.<br>Fares,<br>Employment                                                      |
| HALSTEAD ...         | Second Tuesday in each month at 3 p.m. (except August) | Drawn from Central Fund of Halstead Care of Children Committee | 4 0                 | 6                | 1                            | Grant towards travelling expenses                                                                                        |
| ILFORD ...           | First Thursday in each month at 7.30 p.m.              | 931 0 0                                                        | 625 17 8            | 24 2 0           | 84                           | Extra Nourishment<br>Convalescent Home<br>Treatment<br>Boarding-out expenses<br>Surgical appliance                       |
| LEYTON ...           | Third Friday in each month at 7.30 p.m.                | 772 18 7                                                       | 417 2 11            | 51 4 11          | 143                          | Extra Nourishment<br>Convalescent Holiday<br>Treatment<br>Clothing                                                       |
| ROMFORD ...          | Fourth Thursday in each month at 8 p.m.                | 622 6 4                                                        | 340 17 1            | 17 6 9           | 64                           | Extra Nourishment<br>Convalescent Holiday<br>Treatment<br>Fares<br>Clothing<br>Boarding-out of child                     |
| SAYFROU<br>WALDEN    | Fourth Tuesday in each month at 2.30 p.m.              | 163 17 8                                                       | 134 6 2             | 3 7 0            | 55                           | Extra Nourishment<br>Convalescent Holiday<br>Treatment                                                                   |
| WALTHAMSTOW          | First Friday in each month at 7 p.m.                   | 791 2 8                                                        | 541 15 7            | 52 2 5           | 179                          | Extra Nourishment<br>Convalescent Holiday<br>Treatment<br>Dentures, part cost<br>Fares<br>Clothing<br>Surgical appliance |

\*This refers to fund for those areas in the County not served by a Tuberculosis Care Association.



### **Shelters.**

During the year an average number of 81 shelters was in use by patients at their homes.

### **Travelling Facilities for Patients.**

An amount of £51 17s. 8d. was expended during the year in providing necessitous patients with free travelling vouchers upon admission or discharge from Institutions, and special visits to " Out-patient " Departments.

### **Extra Nourishment.**

During the year 163 patients were granted extra nourishment at a cost of £242 1s. 11d.

### **Public Health (Prevention of Tuberculosis) Regulations, 1925.**

#### **Public Health Act, 1925 (Section 62).**

No action was taken during the year by the County Council under the above Regulations and Act.



TABLE XVIII

## (a) PULMONARY TUBERCULOSIS

75a

Table showing in summary form (a) the condition at the end of 1934 of all patients remaining on the Dispensary Register; and (b) the reasons for the removal of all cases written off the Register. The Table is arranged according to the years in which the patients were first entered on the Dispensary Register as definite cases of pulmonary tuberculosis, and their classification at that time.

| Condition at the time of the last record made during the year to which the Return relates. |           |    | Previous to 1926. |          |          |                           | 1926.             |          |          |                           | 1927.             |          |          |                           | 1928.             |          |          |                           | 1929.             |          |          |                           | 1930.             |          |          |                           | 1931.             |          |          |                           | 1932.             |          |          |                           | 1933.             |          |          |                           | 1934.             |     |     |     |     |
|--------------------------------------------------------------------------------------------|-----------|----|-------------------|----------|----------|---------------------------|-------------------|----------|----------|---------------------------|-------------------|----------|----------|---------------------------|-------------------|----------|----------|---------------------------|-------------------|----------|----------|---------------------------|-------------------|----------|----------|---------------------------|-------------------|----------|----------|---------------------------|-------------------|----------|----------|---------------------------|-------------------|----------|----------|---------------------------|-------------------|-----|-----|-----|-----|
|                                                                                            |           |    | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |          |          |                           | Class T. R. Plus. |     |     |     |     |
|                                                                                            |           |    | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) | Group 1.          | Group 2. | Group 3. | Total (Class T. R. Plus.) |                   |     |     |     |     |
| Disease arrested.                                                                          | Adults.   | M. | 108               | 23       | 41       | 5                         | 69                | 18       | 6        | 7                         | 3                 | 34       | 15       | 7                         | 10                | 17       | 13       | 8                         | 11                | 1        | 20       | 16                        | 7                 | 10       | 17       | 28                        | 9                 | 12       | 21       | 36                        | 7                 | 9        | 1        | 17                        | 30                | 5        | 9        | 1                         | 15                |     |     |     |     |
|                                                                                            | Children. | F. | 66                | 9        | 27       | 7                         | 23                | 21       | 5        | 5                         | 2                 | 13       | 33       | 7                         | 11                | 1        | 18       | 20                        | 2                 | 10       | 3        | 15                        | 29                | 4        | 11       | 15                        | 28                | 10       | 18       | 1                         | 29                | 36       | 5        | 11                        | 1                 | 14       | 30       | 5                         | 9                 | 1   | 15  |     |     |
|                                                                                            | Total.    |    | 174               | 32       | 68       | 12                        | 92                | 39       | 11       | 13                        | 5                 | 47       | 48       | 14                        | 21                | 18       | 31       | 33                        | 10                | 21       | 4        | 35                        | 45                | 11       | 21       | 32                        | 56                | 19       | 30       | 2                         | 65                | 72       | 12       | 28                        | 2                 | 24       | 60       | 10                        | 24                | 2   | 15  |     |     |
| Disease not arrested.                                                                      | Adults.   | M. | 92                | 11       | 56       | 13                        | 86                | 4        | 9        | 26                        | 3                 | 26       | 5        | 4                         | 24                | 6        | 24       | 6                         | 7                 | 19       | 5        | 28                        | 5                 | 2        | 41       | 6                         | 4                 | 10       | 5        | 50                        | 4                 | 56       | 28       | 11                        | 79                | 1        | 81       | 4                         | 56                | 10  | 116 |     |     |
|                                                                                            | Children. | F. | 26                | 19       | 49       | 7                         | 66                | 4        | 7        | 15                        | 9                 | 35       | 6        | 2                         | 17                | 4        | 25       | 9                         | 4                 | 21       | 35       | 10                        | 4                 | 26       | 2        | 32                        | 12                | 7        | 44       | 1                         | 52                | 24       | 12       | 60                        | 4                 | 56       | 4        | 56                        | 10                | 116 |     |     |     |
|                                                                                            | Total.    |    | 118               | 30       | 105      | 20                        | 152               | 8        | 16       | 41                        | 12                | 61       | 11       | 6                         | 41                | 10       | 49       | 15                        | 11                | 40       | 45       | 20                        | 14                | 47       | 7        | 64                        | 14                | 14       | 51       | 5                         | 108               | 32       | 18       | 90                        | 5                 | 57       | 122      | 18                        | 90                | 5   | 57  |     |     |
| Condition not ascertained due to the year.                                                 | Adults.   | M. | 13                | 1        | 5        | —                         | 6                 | 7        | —        | 1                         | —                 | 1        | 1        | 1                         | 2                 | 1        | —        | —                         | —                 | —        | —        | 3                         | 2                 | 1        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —   | —   |     |     |
|                                                                                            | Children. | F. | 275               | 57       | 194      | 20                        | 269               | 73       | 28       | 60                        | 15                | 165      | 76       | 22                        | 66                | 11       | 99       | 64                        | 28                | 73       | 19       | 120                       | 75                | 21       | 91       | 12                        | 124               | 87       | 32       | 129                       | 6                 | 167      | 120      | 36                        | 164               | 6        | 206      | 178                       | 32                | 190 | 19  | 209 |     |
|                                                                                            | Total.    |    | 288               | 58       | 199      | 20                        | 275               | 73       | 28       | 60                        | 15                | 165      | 76       | 22                        | 66                | 11       | 99       | 64                        | 28                | 73       | 19       | 120                       | 75                | 21       | 91       | 12                        | 124               | 87       | 32       | 129                       | 6                 | 167      | 120      | 36                        | 164               | 6        | 206      | 178                       | 32                | 190 | 19  | 209 |     |
| Discharged as Recovered.                                                                   | Adults.   | M. | 221               | 35       | 33       | —                         | 64                | 22       | 8        | 3                         | —                 | 11       | 22       | 4                         | 3                 | 7        | 5        | 1                         | 4                 | —        | 5        | 4                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —   | —   | —   |     |
|                                                                                            | Children. | F. | 202               | 16       | 25       | 4                         | 43                | 30       | 5        | 3                         | 1                 | 9        | 18       | 5                         | 7                 | 12       | 10       | 1                         | 1                 | —        | 2        | 8                         | —                 | 1        | 1        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —   | —   | —   |     |
|                                                                                            | Total.    |    | 423               | 51       | 58       | 8                         | 107               | 52       | 13       | 4                         | 2                 | 20       | 40       | 9                         | 10                | 19       | 15       | 2                         | 5                 | —        | 7        | 12                        | —                 | 2        | 2        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —   | —   | —   |     |
| Lost sight of or otherwise removed from Dispensary Register.                               | Adults.   | M. | 145               | 20       | 26       | 109                       | 842               | 486      | 331      | 53                        | 22                | 206      | 406      | 114                       | 160               | 28       | 312      | 224                       | 65                | 119      | 12       | 196                       | 213               | 61       | 123      | 16                        | 191               | 154      | 20       | 23                        | 9                 | 120      | 194      | 48                        | 87                | 9        | 144      | 58                        | 27                | 70  | 167 |     |     |
|                                                                                            | Children. | F. | 139               | 63       | 143      | 160                       | 466               | 66       | 44       | 137                       | 59                | 41       | 321      | 74                        | 24                | 136      | 61       | 515                       | 40                | 34       | 101      | 65                        | 179               | 26       | 30       | 137                       | 39                | 136      | 72       | 23                        | 168               | 49       | 140      | 12                        | 6                 | 133      | 27       | 166                       | 16                | 7   | 98  | 14  | 119 |
|                                                                                            | Total.    |    | 284               | 83       | 169      | 260                       | 1152              | 552      | 174      | 192                       | 102               | 63       | 327      | 480                       | 138               | 296      | 89       | 627                       | 164               | 99       | 220      | 24                        | 375               | 239      | 72       | 253                       | 195               | 92       | 34       | 125                       | 34                | 6        | 159      | 209                       | 55                | 162      | 25       | 111                       | 113               | 27  | 286 |     |     |
| Total written off Dispensary Register.                                                     | Adults.   | M. | 139               | 1        | 11       | 6                         | 18                | 6        | 7        | 3                         | 2                 | 11       | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —        | —        | —                         | —                 | —   | —   | —   |     |
|                                                                                            | Children. | F. | 275               | 57       | 194      | 20                        | 269               | 73       | 28       | 60                        | 15                | 165      | 76       | 22                        | 66                | 11       | 99       | 64                        | 28                | 73       | 19       | 120                       | 75                | 21       | 91       | 12                        | 124               | 87       | 32       | 129                       | 6                 | 167      | 120      | 36                        | 164               | 6        | 206      | 178                       | 32                | 190 |     |     |     |
|                                                                                            | Total.    |    | 414               | 58       | 205      | 20                        | 287               | 73       | 28       | 60                        | 15                | 165      | 76       | 22                        | 66                | 11       | 99       | 64                        | 28                | 73       | 19       | 120                       | 75                | 21       | 91       | 12                        | 124               | 87       | 32       | 129                       | 6                 | 167      | 120      | 36                        | 164               | 6        | 206      | 178                       | 32                | 190 |     |     |     |
| GRAND TOTALS.                                                                              |           |    | 2054              | 342      | 1053     | 419                       | 3392              | 720      | 236      | 416                       | 143               | 794      | 142      | 196                       | 454               | 147      | 799      | 373                       | 142               | 386      | 112      | 646                       | 502               | 124      | 415      | 308                       | 475               | 392      | 111      | 400                       | 166               | 607      | 264      | 99                        | 479               | 66       | 647      | 290                       | 72                | 430 | 64  | 566 |     |



# TABLE XVII

Summary of the results of the investigation of the effect of the concentration of the solution on the rate of the reaction between the solution and the solid substance.

| Concentration of the solution, % | Rate of the reaction, g./hr. |      |      |      | Concentration of the solution, % | Rate of the reaction, g./hr. |      |      |      |
|----------------------------------|------------------------------|------|------|------|----------------------------------|------------------------------|------|------|------|
|                                  | 0.1                          | 0.2  | 0.3  | 0.4  |                                  | 0.1                          | 0.2  | 0.3  | 0.4  |
| 0.1                              | 0.1                          | 0.2  | 0.3  | 0.4  | 0.1                              | 0.1                          | 0.2  | 0.3  | 0.4  |
| 0.2                              | 0.2                          | 0.4  | 0.6  | 0.8  | 0.2                              | 0.2                          | 0.4  | 0.6  | 0.8  |
| 0.3                              | 0.3                          | 0.6  | 0.9  | 1.2  | 0.3                              | 0.3                          | 0.6  | 0.9  | 1.2  |
| 0.4                              | 0.4                          | 0.8  | 1.2  | 1.6  | 0.4                              | 0.4                          | 0.8  | 1.2  | 1.6  |
| 0.5                              | 0.5                          | 1.0  | 1.5  | 2.0  | 0.5                              | 0.5                          | 1.0  | 1.5  | 2.0  |
| 0.6                              | 0.6                          | 1.2  | 1.8  | 2.4  | 0.6                              | 0.6                          | 1.2  | 1.8  | 2.4  |
| 0.7                              | 0.7                          | 1.4  | 2.1  | 2.8  | 0.7                              | 0.7                          | 1.4  | 2.1  | 2.8  |
| 0.8                              | 0.8                          | 1.6  | 2.4  | 3.2  | 0.8                              | 0.8                          | 1.6  | 2.4  | 3.2  |
| 0.9                              | 0.9                          | 1.8  | 2.7  | 3.6  | 0.9                              | 0.9                          | 1.8  | 2.7  | 3.6  |
| 1.0                              | 1.0                          | 2.0  | 3.0  | 4.0  | 1.0                              | 1.0                          | 2.0  | 3.0  | 4.0  |
| 1.1                              | 1.1                          | 2.2  | 3.3  | 4.4  | 1.1                              | 1.1                          | 2.2  | 3.3  | 4.4  |
| 1.2                              | 1.2                          | 2.4  | 3.6  | 4.8  | 1.2                              | 1.2                          | 2.4  | 3.6  | 4.8  |
| 1.3                              | 1.3                          | 2.6  | 3.9  | 5.2  | 1.3                              | 1.3                          | 2.6  | 3.9  | 5.2  |
| 1.4                              | 1.4                          | 2.8  | 4.2  | 5.6  | 1.4                              | 1.4                          | 2.8  | 4.2  | 5.6  |
| 1.5                              | 1.5                          | 3.0  | 4.5  | 6.0  | 1.5                              | 1.5                          | 3.0  | 4.5  | 6.0  |
| 1.6                              | 1.6                          | 3.2  | 4.8  | 6.4  | 1.6                              | 1.6                          | 3.2  | 4.8  | 6.4  |
| 1.7                              | 1.7                          | 3.4  | 5.1  | 6.8  | 1.7                              | 1.7                          | 3.4  | 5.1  | 6.8  |
| 1.8                              | 1.8                          | 3.6  | 5.4  | 7.2  | 1.8                              | 1.8                          | 3.6  | 5.4  | 7.2  |
| 1.9                              | 1.9                          | 3.8  | 5.7  | 7.6  | 1.9                              | 1.9                          | 3.8  | 5.7  | 7.6  |
| 2.0                              | 2.0                          | 4.0  | 6.0  | 8.0  | 2.0                              | 2.0                          | 4.0  | 6.0  | 8.0  |
| 2.1                              | 2.1                          | 4.2  | 6.3  | 8.4  | 2.1                              | 2.1                          | 4.2  | 6.3  | 8.4  |
| 2.2                              | 2.2                          | 4.4  | 6.6  | 8.8  | 2.2                              | 2.2                          | 4.4  | 6.6  | 8.8  |
| 2.3                              | 2.3                          | 4.6  | 6.9  | 9.2  | 2.3                              | 2.3                          | 4.6  | 6.9  | 9.2  |
| 2.4                              | 2.4                          | 4.8  | 7.2  | 9.6  | 2.4                              | 2.4                          | 4.8  | 7.2  | 9.6  |
| 2.5                              | 2.5                          | 5.0  | 7.5  | 10.0 | 2.5                              | 2.5                          | 5.0  | 7.5  | 10.0 |
| 2.6                              | 2.6                          | 5.2  | 7.8  | 10.4 | 2.6                              | 2.6                          | 5.2  | 7.8  | 10.4 |
| 2.7                              | 2.7                          | 5.4  | 8.1  | 10.8 | 2.7                              | 2.7                          | 5.4  | 8.1  | 10.8 |
| 2.8                              | 2.8                          | 5.6  | 8.4  | 11.2 | 2.8                              | 2.8                          | 5.6  | 8.4  | 11.2 |
| 2.9                              | 2.9                          | 5.8  | 8.7  | 11.6 | 2.9                              | 2.9                          | 5.8  | 8.7  | 11.6 |
| 3.0                              | 3.0                          | 6.0  | 9.0  | 12.0 | 3.0                              | 3.0                          | 6.0  | 9.0  | 12.0 |
| 3.1                              | 3.1                          | 6.2  | 9.3  | 12.4 | 3.1                              | 3.1                          | 6.2  | 9.3  | 12.4 |
| 3.2                              | 3.2                          | 6.4  | 9.6  | 12.8 | 3.2                              | 3.2                          | 6.4  | 9.6  | 12.8 |
| 3.3                              | 3.3                          | 6.6  | 9.9  | 13.2 | 3.3                              | 3.3                          | 6.6  | 9.9  | 13.2 |
| 3.4                              | 3.4                          | 6.8  | 10.2 | 13.6 | 3.4                              | 3.4                          | 6.8  | 10.2 | 13.6 |
| 3.5                              | 3.5                          | 7.0  | 10.5 | 14.0 | 3.5                              | 3.5                          | 7.0  | 10.5 | 14.0 |
| 3.6                              | 3.6                          | 7.2  | 10.8 | 14.4 | 3.6                              | 3.6                          | 7.2  | 10.8 | 14.4 |
| 3.7                              | 3.7                          | 7.4  | 11.1 | 14.8 | 3.7                              | 3.7                          | 7.4  | 11.1 | 14.8 |
| 3.8                              | 3.8                          | 7.6  | 11.4 | 15.2 | 3.8                              | 3.8                          | 7.6  | 11.4 | 15.2 |
| 3.9                              | 3.9                          | 7.8  | 11.7 | 15.6 | 3.9                              | 3.9                          | 7.8  | 11.7 | 15.6 |
| 4.0                              | 4.0                          | 8.0  | 12.0 | 16.0 | 4.0                              | 4.0                          | 8.0  | 12.0 | 16.0 |
| 4.1                              | 4.1                          | 8.2  | 12.3 | 16.4 | 4.1                              | 4.1                          | 8.2  | 12.3 | 16.4 |
| 4.2                              | 4.2                          | 8.4  | 12.6 | 16.8 | 4.2                              | 4.2                          | 8.4  | 12.6 | 16.8 |
| 4.3                              | 4.3                          | 8.6  | 12.9 | 17.2 | 4.3                              | 4.3                          | 8.6  | 12.9 | 17.2 |
| 4.4                              | 4.4                          | 8.8  | 13.2 | 17.6 | 4.4                              | 4.4                          | 8.8  | 13.2 | 17.6 |
| 4.5                              | 4.5                          | 9.0  | 13.5 | 18.0 | 4.5                              | 4.5                          | 9.0  | 13.5 | 18.0 |
| 4.6                              | 4.6                          | 9.2  | 13.8 | 18.4 | 4.6                              | 4.6                          | 9.2  | 13.8 | 18.4 |
| 4.7                              | 4.7                          | 9.4  | 14.1 | 18.8 | 4.7                              | 4.7                          | 9.4  | 14.1 | 18.8 |
| 4.8                              | 4.8                          | 9.6  | 14.4 | 19.2 | 4.8                              | 4.8                          | 9.6  | 14.4 | 19.2 |
| 4.9                              | 4.9                          | 9.8  | 14.7 | 19.6 | 4.9                              | 4.9                          | 9.8  | 14.7 | 19.6 |
| 5.0                              | 5.0                          | 10.0 | 15.0 | 20.0 | 5.0                              | 5.0                          | 10.0 | 15.0 | 20.0 |
| 5.1                              | 5.1                          | 10.2 | 15.3 | 20.4 | 5.1                              | 5.1                          | 10.2 | 15.3 | 20.4 |
| 5.2                              | 5.2                          | 10.4 | 15.6 | 20.8 | 5.2                              | 5.2                          | 10.4 | 15.6 | 20.8 |
| 5.3                              | 5.3                          | 10.6 | 15.9 | 21.2 | 5.3                              | 5.3                          | 10.6 | 15.9 | 21.2 |
| 5.4                              | 5.4                          | 10.8 | 16.2 | 21.6 | 5.4                              | 5.4                          | 10.8 | 16.2 | 21.6 |
| 5.5                              | 5.5                          | 11.0 | 16.5 | 22.0 | 5.5                              | 5.5                          | 11.0 | 16.5 | 22.0 |
| 5.6                              | 5.6                          | 11.2 | 16.8 | 22.4 | 5.6                              | 5.6                          | 11.2 | 16.8 | 22.4 |
| 5.7                              | 5.7                          | 11.4 | 17.1 | 22.8 | 5.7                              | 5.7                          | 11.4 | 17.1 | 22.8 |
| 5.8                              | 5.8                          | 11.6 | 17.4 | 23.2 | 5.8                              | 5.8                          | 11.6 | 17.4 | 23.2 |
| 5.9                              | 5.9                          | 11.8 | 17.7 | 23.6 | 5.9                              | 5.9                          | 11.8 | 17.7 | 23.6 |
| 6.0                              | 6.0                          | 12.0 | 18.0 | 24.0 | 6.0                              | 6.0                          | 12.0 | 18.0 | 24.0 |
| 6.1                              | 6.1                          | 12.2 | 18.3 | 24.4 | 6.1                              | 6.1                          | 12.2 | 18.3 | 24.4 |
| 6.2                              | 6.2                          | 12.4 | 18.6 | 24.8 | 6.2                              | 6.2                          | 12.4 | 18.6 | 24.8 |
| 6.3                              | 6.3                          | 12.6 | 18.9 | 25.2 | 6.3                              | 6.3                          | 12.6 | 18.9 | 25.2 |
| 6.4                              | 6.4                          | 12.8 | 19.2 | 25.6 | 6.4                              | 6.4                          | 12.8 | 19.2 | 25.6 |
| 6.5                              | 6.5                          | 13.0 | 19.5 | 26.0 | 6.5                              | 6.5                          | 13.0 | 19.5 | 26.0 |
| 6.6                              | 6.6                          | 13.2 | 19.8 | 26.4 | 6.6                              | 6.6                          | 13.2 | 19.8 | 26.4 |
| 6.7                              | 6.7                          | 13.4 | 20.1 | 26.8 | 6.7                              | 6.7                          | 13.4 | 20.1 | 26.8 |
| 6.8                              | 6.8                          | 13.6 | 20.4 | 27.2 | 6.8                              | 6.8                          | 13.6 | 20.4 | 27.2 |
| 6.9                              | 6.9                          | 13.8 | 20.7 | 27.6 | 6.9                              | 6.9                          | 13.8 | 20.7 | 27.6 |
| 7.0                              | 7.0                          | 14.0 | 21.0 | 28.0 | 7.0                              | 7.0                          | 14.0 | 21.0 | 28.0 |
| 7.1                              | 7.1                          | 14.2 | 21.3 | 28.4 | 7.1                              | 7.1                          | 14.2 | 21.3 | 28.4 |
| 7.2                              | 7.2                          | 14.4 | 21.6 | 28.8 | 7.2                              | 7.2                          | 14.4 | 21.6 | 28.8 |
| 7.3                              | 7.3                          | 14.6 | 21.9 | 29.2 | 7.3                              | 7.3                          | 14.6 | 21.9 | 29.2 |
| 7.4                              | 7.4                          | 14.8 | 22.2 | 29.6 | 7.4                              | 7.4                          | 14.8 | 22.2 | 29.6 |
| 7.5                              | 7.5                          | 15.0 | 22.5 | 30.0 | 7.5                              | 7.5                          | 15.0 | 22.5 | 30.0 |
| 7.6                              | 7.6                          | 15.2 | 22.8 | 30.4 | 7.6                              | 7.6                          | 15.2 | 22.8 | 30.4 |
| 7.7                              | 7.7                          | 15.4 | 23.1 | 30.8 | 7.7                              | 7.7                          | 15.4 | 23.1 | 30.8 |
| 7.8                              | 7.8                          | 15.6 | 23.4 | 31.2 | 7.8                              | 7.8                          | 15.6 | 23.4 | 31.2 |
| 7.9                              | 7.9                          | 15.8 | 23.7 | 31.6 | 7.9                              | 7.9                          | 15.8 | 23.7 | 31.6 |
| 8.0                              | 8.0                          | 16.0 | 24.0 | 32.0 | 8.0                              | 8.0                          | 16.0 | 24.0 | 32.0 |
| 8.1                              | 8.1                          | 16.2 | 24.3 | 32.4 | 8.1                              | 8.1                          | 16.2 | 24.3 | 32.4 |
| 8.2                              | 8.2                          | 16.4 | 24.6 | 32.8 | 8.2                              | 8.2                          | 16.4 | 24.6 | 32.8 |
| 8.3                              | 8.3                          | 16.6 | 24.9 | 33.2 | 8.3                              | 8.3                          | 16.6 | 24.9 | 33.2 |
| 8.4                              | 8.4                          | 16.8 | 25.2 | 33.6 | 8.4                              | 8.4                          | 16.8 | 25.2 | 33.6 |
| 8.5                              | 8.5                          | 17.0 | 25.5 | 34.0 | 8.5                              | 8.5                          | 17.0 | 25.5 | 34.0 |
| 8.6                              | 8.6                          | 17.2 | 25.8 | 34.4 | 8.6                              | 8.6                          | 17.2 | 25.8 | 34.4 |
| 8.7                              | 8.7                          | 17.4 | 26.1 | 34.8 | 8.7                              | 8.7                          | 17.4 | 26.1 | 34.8 |
| 8.8                              | 8.8                          | 17.6 | 26.4 | 35.2 | 8.8                              | 8.8                          | 17.6 | 26.4 | 35.2 |
| 8.9                              | 8.9                          | 17.8 | 26.7 | 35.6 | 8.9                              | 8.9                          | 17.8 | 26.7 | 35.6 |
| 9.0                              | 9.0                          | 18.0 | 27.0 | 36.0 | 9.0                              | 9.0                          | 18.0 | 27.0 | 36.0 |
| 9.1                              | 9.1                          | 18.2 | 27.3 | 36.4 | 9.1                              | 9.1                          | 18.2 | 27.3 | 36.4 |
| 9.2                              | 9.2                          | 18.4 | 27.6 | 36.8 | 9.2                              | 9.2                          | 18.4 | 27.6 | 36.8 |
| 9.3                              | 9.3                          | 18.6 | 27.9 | 37.2 | 9.3                              | 9.3                          | 18.6 | 27.9 | 37.2 |
| 9.4                              | 9.4                          | 18.8 | 28.2 | 37.6 | 9.4                              | 9.4                          | 18.8 | 28.2 | 37.6 |
| 9.5                              | 9.5                          | 19.0 | 28.5 | 38.0 | 9.5                              | 9.5                          | 19.0 | 28.5 | 38.0 |
| 9.6                              | 9.6                          | 19.2 | 28.8 | 38.4 | 9.6                              | 9.6                          | 19.2 | 28.8 | 38.4 |
| 9.7                              | 9.7                          | 19.4 | 29.1 | 38.8 | 9.7                              | 9.7                          | 19.4 | 29.1 | 38.8 |
| 9.8                              | 9.8                          | 19.6 | 29.4 | 39.2 | 9.8                              | 9.8                          | 19.6 | 29.4 | 39.2 |
| 9.9                              | 9.9                          | 19.8 | 29.7 | 39.6 | 9.9                              | 9.9                          | 19.8 | 29.7 | 39.6 |
| 10.0                             | 10.0                         | 20.0 | 30.0 | 40.0 | 10.0                             | 10.0                         | 20.0 | 30.0 | 40.0 |





# TABLE III

Continued

| Date |       |      | Time |     |     | Place     |            |     | Remarks |
|------|-------|------|------|-----|-----|-----------|------------|-----|---------|
| Day  | Month | Year | Hour | Min | Sec | Lat       | Long       | Alt |         |
| 1    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 2    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 3    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 4    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 5    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 6    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 7    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 8    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 9    | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 10   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 11   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 12   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 13   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 14   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 15   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 16   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 17   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 18   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 19   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 20   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 21   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 22   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 23   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 24   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 25   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 26   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 27   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 28   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 29   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 30   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |
| 31   | 1     | 1961 | 08   | 00  | 00  | 10° 00' N | 150° 00' W | 100 | Clear   |



## 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 1934 for administering the above Acts in the following 32 Sanitary Districts.

The information in the following table is obtained from (a) the births actually notified to the County Health Department, (b) particulars of unnotified births furnished by the local Registrars of Births and Deaths, and (c) notifications of Puerperal Fever and Ophthalmia Neonatorum as given by the Registrar-General :—

TABLE XX.

| Sanitary Districts.         | †Adjusted Population. | No. of Births notified by |                      | No. of Births Unnotified. | No. of Notifications of |                        |
|-----------------------------|-----------------------|---------------------------|----------------------|---------------------------|-------------------------|------------------------|
|                             |                       | Mid-wives.                | Doctors and Parents. |                           | Puerperal Fever.        | Ophthalmia Neonatorum. |
| Maldon B. ....              | 8,855                 | 25                        | 59                   | 4                         | ...                     | 1                      |
| Saffron Walden B. ....      | 6,223                 | 32                        | 17                   | 10                        | 1                       | ...                    |
| Benfleet U. ....            | 13,900                | 84                        | 50                   | 4                         | ...                     | ...                    |
| Billericay U. ....          | 28,060                | 322                       | 183                  | 8                         | 1                       | ...                    |
| Braintree & Bocking U. .... | 14,005                | 86                        | 64                   | 4                         | 1                       | ...                    |
| Brentwood U. ....           | 26,150                | 101                       | 82                   | 2                         | 1                       | ...                    |
| Brightlingsea U. ....       | 4,143                 | —                         | 34                   | 2                         | ...                     | ...                    |
| Burnham-on-Crouch U. ....   | 3,499                 | 27                        | 8                    | 1                         | 1                       | ...                    |
| Canvey Island U. ....       | 4,883                 | 58                        | 8                    | 7                         | ...                     | 1                      |
| Chigwell U. ....            | 18,350                | 23                        | 21                   | 3                         | ...                     | ...                    |
| Chingford U. ....           | 27,845                | 132                       | 179                  | 45                        | 1                       | ...                    |
| Epping U. ....              | 5,359                 | 31                        | 48                   | 1                         | ...                     | ...                    |
| Frinton & Walton U. ....    | 6,926                 | 14                        | 25                   | 2                         | ...                     | ...                    |
| Halstead U. ....            | 5,931                 | 31                        | 41                   | 1                         | ...                     | ...                    |
| Hornchurch U. ....          | 55,798                | 332                       | 430                  | 24                        | 1                       | 3                      |
| Purfleet U. ....            | 8,780                 | 87                        | 58                   | 1                         | ...                     | ...                    |
| Rayleigh U. ....            | 7,119                 | 43                        | 23                   | 6                         | 1                       | ...                    |
| Raltham Holy Cross U. ....  | 7,030                 | 39                        | 58                   | 5                         | ...                     | 1                      |
| West Mersea U. ....         | 2,268                 | 1                         | 13                   | ...                       | ...                     | ...                    |
| Witham U. ....              | 6,970                 | 70                        | 40                   | 1                         | 2                       | ...                    |
| Wivenhoe U. ....            | 2,226                 | ...                       | 28                   | 2                         | ...                     | ...                    |
| Braintree R. ....           | 15,888                | 132                       | 95                   | 1                         | 1                       | ...                    |
| Chelmsford R. ....          | 30,109                | 245                       | 117                  | 23                        | 2                       | ...                    |
| Dunmow R. ....              | 16,058                | 99                        | 83                   | 7                         | ...                     | ...                    |
| Epping R. ....              | 14,195                | 85                        | 70                   | 8                         | ...                     | ...                    |
| Halstead R. ....            | 15,735                | 88                        | 86                   | 1                         | ...                     | ...                    |
| Hexden & Winthorpe R. ....  | 19,875                | 109                       | 113                  | 8                         | 2                       | ...                    |
| Malden R. ....              | 13,590                | 99                        | 94                   | 14                        | 2                       | 1                      |
| Ngar R. ....                | 12,500                | 101                       | 82                   | 3                         | ...                     | 1                      |
| Roehford R. ....            | 15,427                | 127                       | 359                  | 5                         | 2                       | 3                      |
| Saffron Walden B. ....      | 15,442                | 107                       | 68                   | 2                         | 1                       | ...                    |
| Tendring R. ....            | 22,239                | 231                       | 146                  | 5                         | ...                     | ...                    |
| Totals ...                  | 455,375               | 2,961                     | 2,782                | 210                       | 20                      | 11                     |

†These figures relate to populations in the Sanitary Districts as amended by the Essex Review Order, 1934, which came into operation on 1st April, 1934, under Section 46 of the Local Government Act, 1929.

\*On 1st October, 1934, the Essex (Transfer of Maternity and Child Welfare Services) Order, 1934, came into operation, transferring from the Chigwell Urban District Council the powers under the Notification of Births Acts to the County Council.

(2) MEDICAL STAFF. Particulars in regard to the Medical Staff are given on page 7.



(3) **HEALTH VISITORS.** Owing to the increase of work generally and to the necessity for improving the supervision of pre-school children, additional health visitors were appointed in the Brentwood Area (10-9-34), Epping Area (10-9-34), Hornchurch Area (10-9-34), Chelmsford Area (1-10-34) and Braintree Area (1-1-34). On 1st October, 1934, the County Council took over the services of the Health Visitor and Midwife in Buckhurst Hill, and for a temporary period of six months only, the services of the part-time Health Visitor previously employed by the Loughton U.D.C.

Facilities were granted to one existing member of the Health Visiting Staff to train for the new Health Visitors' Certificate by being appointed as probationer Health Visitor under the Council's scheme.

As from 1st July, 1934, the following revised scale of salaries for Health Visitors employed by the County Council came into operation :—

Health Visitors with the following qualifications :—

|                                                                                                                      |   |                                                                                |
|----------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------|
| (1) New Health Visitor's Certificate approved<br>by Ministry of Health or Department of<br>Health for Scotland       | } | £200 per annum, rising<br>by annual increments<br>of £10 to £250 per<br>annum. |
| (2) Three years' General Training Certificate<br>or the two years' training Course for<br>Board of Education Diploma |   |                                                                                |
| (3) Central Midwives Board Certificate                                                                               |   |                                                                                |

|                                                                                               |    |                                                                                |
|-----------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------|
| Health Visitors without the foregoing qualifications,<br>appointed before 15th February, 1934 | .. | £170 per annum, rising<br>by annual increments<br>of £10 to £220 per<br>annum. |
|-----------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------|

|                     |    |                                                                                |
|---------------------|----|--------------------------------------------------------------------------------|
| Tuberculosis Nurses | .. | £170 per annum, rising<br>by annual increments<br>of £10 to £220 per<br>annum. |
|---------------------|----|--------------------------------------------------------------------------------|

|               |    |                                                                                |
|---------------|----|--------------------------------------------------------------------------------|
| School Nurses | .. | £170 per annum, rising<br>by annual increments<br>of £10 to £220 per<br>annum. |
|---------------|----|--------------------------------------------------------------------------------|

Authority is given to the Committee to vary the commencing salaries of fully qualified Health Visitors according to previous experience.

A successful Conference of the County Health Visitors was held on 21st December, 1934, when a Paper by Dr. W. L. Yell, on "Tuberculosis" was circulated, and Mr. Hamblen Thomas, the Ear, Nose and Throat Specialist, gave an interesting lecture and demonstration.

On 31st December, 1934, 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) .. .. . | 39 | } Equivalent whole time H.V. for C.W. = 18 (approx.) |
| Whole-time (part-time C.C. and part-time L.A.) ..                    | 2  |                                                      |
| Part-time .. .. .                                                    | 2  |                                                      |

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.

(4) ANTE-NATAL CLINICS AND CHILD WELFARE CENTRES. At the end of the year 1934, there were 17 Ante-Natal Clinics and 97 Child Welfare Centres, not including Weighing Centres, in the County Child Welfare Area. During the year Ante-Natal Clinics were established at Billericay and South Benfleet, and Child Welfare Centres at Goldhanger, High Easter, Stock, Takeley and Walton-on-Naze. The Child Welfare Centres at Buckhurst Hill and Loughton were taken over by the County Council on 1st October, 1934. A number of Weighing Centres were also established during the year.

On 13th December, 1934, the 2nd Annual Conference was held of representatives from each of the Voluntary Committees of Child Welfare Centres. Dr. Miller Wood spoke on the subject of Maternal Mortality in relation to the Maternity and Child Welfare Scheme, and an excellent discussion followed on a variety of subjects relating to the Scheme.

The arrangement with the National Milk Publicity Council for giving Demonstrations at Child Welfare Centres on methods of using and preparing milk was continued.

Towards the end of the year the services of a Domestic Science Teacher, Mrs. B. G. Richardson, were engaged to give lessons in elementary cooking and housewifery at some of the larger centres, the first course of lectures commencing in January, 1935. These lectures have proved very popular with the mothers, and steps are being taken to extend the facilities to all parts of the County Council Child Welfare Area.

(5) COMBINED TREATMENT CENTRES. Reference is made to Combined Treatment Centres on page 94 of this Report.

(6) PROVISION OF MILK AND MEDICAMENTS. The two schemes for (a) the provision of wet milk and (b) medicaments through local chemists outlined in previous reports, were continued.

(7) DENTAL TREATMENT AND DENTURES. The scheme, as outlined in the Report for the previous year, was continued, except that from the 1st April, 1934, the following scale of contribution was substituted for the one hitherto in operation :—

| Weekly income after deducting 5/- in respect of each parent and each dependent member of the Household. | Dental Treatment Fee Payable by Patient. | Dentures by Contribution Payable Patient. |
|---------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------|
| Not exceeding £1 ..                                                                                     | Nil                                      | 10/- or actual cost if less than this.    |
| Exceeding £1, but not exceeding 30/-                                                                    | 5/3, or actual fee, if less than this    | £1, or actual cost if less than this.     |
| Exceeding 30/-, but not exceeding £2                                                                    | 10/6, or actual fee, if less than this   | £2, or actual cost if less than this.     |
| Exceeding £2, but not exceeding £3                                                                      | 21/-, or actual fee if less than this    | £3, or actual cost if less than this.     |



Any alterations or repairs to existing dentures are regarded as coming under the heading of treatment and the contribution assessed accordingly.

During the year under review a total of 369 patients were treated at a cost to the Committee of £510 19s. 8d., of which £215 15s. 0d. was recovered from patients as contributions.

(8) HOME HELPS. Eleven applications were received during the year as follows :—Hatfield Peverel (2), Laindon (1), Langham (1), Little Bardfield (1), Maldon (3), Shalford (1), Stebbing (1), Wakes Colne (1).

(9) TRAVELLING EXPENSES OF MOTHERS ATTENDING CHILD WELFARE CENTRES. At the end of the year 1934 thirty-two Child Welfare Centres were participating in the scheme, namely :—Bardfield, Bocking, Burnham-on-Crouch, Danbury, Debden and Wimbish, Dunmow, East Hanningfield, Eastons, Epping, Felsted, Fordham, Harlow, High Easter, Great Horkesley, Laindon, Ongar, Purleigh, Radwinter, Rivenhall and Silver End, Rochford, Stansted, Stebbing, Stock, Terling, Thaxted, Tillingham, Tollesbury, Great Wakering, Little Waltham, Wethersfield, Woodham Ferrers and Great Yeldham.

(10) PUBLIC HEALTH (NOTIFICATION OF PUERPERAL FEVER AND PUERPERAL PYREXIA) REGULATIONS, 1926. During the year ended 31st December, 1934, 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<br>County. |       |       |       | C.C. Child<br>Welfare Area. |       |       |       |
|--------------------|---------------------------|-------|-------|-------|-----------------------------|-------|-------|-------|
|                    | 1931.                     | 1932. | 1933. | 1934. | 1931.                       | 1932. | 1933. | 1934. |
| Puerperal Fever .. | 80                        | 58    | 50    | 61    | 20                          | 20    | 23    | 20    |
| Puerperal Pyrexia  | 156                       | 123   | 150   | 149   | 44                          | 37    | 50    | 42    |

(See also page 88).

(i) *Obstetric Specialist.* The arrangements for the services of the Obstetric Specialist, Andrew McAllister, Esq., F.R.C.S., of 79, Wimpole Street, W.1, previously referred to, were continued. It was not, however, found necessary to call him into consultation.

Arrangements have also been approved whereby W. S. O'Loughlin, Esq., M.C.O.G. (Tel. No. 201 Stapleford Tawney) acts as Consulting Obstetrician and Gynaecologist and performs the following duties for the Public Health Committee :—

- (a) Attends at Ante-natal Clinics as required.
- (b) Acts as Consultant under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926.
- (c) Is available for consultation in connection with difficult and complicated confinements in the homes of patients.
- (d) Carries out such other duties as may be required.

The services of the First Assistant County Medical Officer, Dr. J. L. Miller Wood, M.M.S.A., have also been utilised for consultation with general practitioners in such cases from time to time.



(ii) *Institutional Treatment.* During the year 1934, twenty-five patients suffering from puerperal fever or puerperal pyrexia were admitted to Hospitals and Institutions under the Public Health Committee's arrangement at a cost of £277 14s. 1d., the amount recovered from patients being £64 11s. 10d.

(iii) *Puerperal Fever Units at St. John's Hospital, Chelmsford, and Oldchurch Hospital, Romford.* The valuable work carried out by these two special units, which was mentioned in the report for 1931, has been continued and full advantage of the facilities has been taken by the Public Health Committee, as well as by certain autonomous child welfare authorities in the County. Details of the work carried out have been received and the following is a brief summary thereof :—

| Institution.   | No. of patients admitted. | Duration of Stay. |      |       |       |               | Discharged. |
|----------------|---------------------------|-------------------|------|-------|-------|---------------|-------------|
|                |                           | 0—7               | 8—14 | 15—21 | 22—28 | Over 28 days. |             |
| Chelmsford ... | 24                        | 1                 | 6    | 7     | 2     | 8             | 15          |
| Romford ...    | 20                        | 2                 | 2    | 3     | 4     | 9             | 16          |

(iv) *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.

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

(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, 1934, copies of 69 notifications of Ophthalmia Neonatorum, made by medical practitioners to Medical Officers of Health in the Administrative County, were received.

Eleven of the above notifications relate to patients living in the County Child Welfare Area, and the following particulars of these patients have been obtained :—

| Treated  |              | Vision      |    | Vision    |    | Total      |    | Deaths. |
|----------|--------------|-------------|----|-----------|----|------------|----|---------|
| At Home. | In Hospital. | Unimpaired. |    | Impaired. |    | Blindness. |    |         |
|          |              | R.          | L. | R.        | L. | R.         | L. |         |
| 11       | ..           | —           | .. | 11        | .. | —          | .. | —       |

No patients were admitted to Hospital during the year under the County Council's arrangement for the treatment of this disease.

(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 one hundred and ninety-six patients were admitted under the above schemes at a cost of £1,579 17s. 2d., the amount recovered from patients being £720 17s. 1d.

During the year arrangements for the admission of County patients to the Walthamstow Corporation's Maternity Home "Thorpe Coombe," were considered, but the present accommodation is fully booked up and the matter is in abeyance pending further extensions being made.

The Colchester Corporation extended their Maternity Home, and the arrangements between them and the County Council were revised.

(13) **CONVALESCENT TREATMENT—MOTHERS AND CHILDREN.** The question of making arrangements with a suitable convalescent home for both mothers and children has been under consideration for some time, the difficulty being that there are very few homes available which will take mothers and their babies together.

Early in the year 1935 arrangements were completed with the Mabel Greville Home, Walton-on-the-Naze, for providing convalescent treatment for children from 3 to 5 years of age. The County Medical Officer also reported upon a letter dated 31st January, 1935, received from the Association of Maternity and Child Welfare Centres, from which it appeared that the Association had been offered a large house at Staplehurst, Kent, which could be used as a Convalescent Home for ten mothers with babies, and eight children and enquiring whether the County Council would use the Home if the offer is accepted, the terms being as follows :—

|                                |                   |
|--------------------------------|-------------------|
| Mother with breast-fed baby .. | .. 25/- per week. |
| Mother with bottle-fed baby .. | .. 30/- per week. |
| Toddler .. ..                  | .. 15/- per week. |

The Council approved the principle of providing convalescent treatment for necessitous expectant and nursing mothers and for children under five years of age, and the Association of Maternity and Child Welfare Centres were informed that the Council would be prepared to send to the proposed Convalescent Home at Staplehurst, Kent, patients requiring convalescent treatment upon the terms set out above.

(14) **TREATMENT OF MINOR AILMENTS—CHILDREN UNDER SCHOOL AGE.** This scheme was continued and 29 children under school age received operative treatment during the year.

(15) **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.

As far as children of school age are concerned, these are dealt with in the School Medical Officer's Annual Report, so that the following information relates to children under school age in the County Council's Child Welfare Area :—



(a) *Number of Cases on Books.* At the end of 1934, there were approximately 288 Child Welfare patients requiring treatment, supervision or observation.

(b) *Ascertainment and Re-examination Clinics.* During 1934 Mr. Whitchurch Howell attended 65 clinic sessions for the County Council and carried out 274 examinations of County patients under school age.

(c) *Hospital Treatment.* The following figures show the position regarding institutional treatment on 1st January, 1934, as compared with that on 1st January, 1935 :—

|                | Child Welfare patients recommended and accepted by Committee for hospital treatment. |    | Being investigated. |    | No. in hospital under the County Scheme. |
|----------------|--------------------------------------------------------------------------------------|----|---------------------|----|------------------------------------------|
| 1st Jan., 1934 | 4                                                                                    | .. | 5                   | .. | 5                                        |
| 1st Jan., 1935 | 5                                                                                    | .. | 4                   | .. | 3                                        |

During the year 13 patients completed hospital treatment and 15 patients were admitted into hospital.

(d) *Orthopaedic After-Treatment Clinics.* The Orthopaedic After-Treatment Clinics were continued during the year and 712 attendances of children under school age were made. New After-Treatment Clinics were established at South Benfleet and Tilbury.

In September, 1934, a third Orthopaedic Masseuse, Miss M. Haydon, was appointed in the Chingford and Romford Areas.

### NURSING HOMES REGISTRATION ACT, 1927.

A detailed report was given in the 1928 Report of the provisions under the Act and the procedure adopted by the County Council. Regulations subsequently adopted have been referred to in previous reports.

The number of Registered Homes at the end of the year was as follows :—

|                                                  |    |    |    |    |
|--------------------------------------------------|----|----|----|----|
| (a) Maternity Homes only                         | .. | .. | .. | 25 |
| (b) Maternity and Nursing Homes                  | .. | .. | .. | 17 |
| (c) Nursing Homes (including Convalescent Homes) | .. | .. | .. | 8  |

The Bye-laws referred to in the previous year's report have not yet been approved.

The routine inspections of the Nursing Homes have been carried out at regular intervals. An opportunity has also been taken at these visits of inspecting those midwives residing in Nursing Homes who have notified their intention to practise.

In the majority of the Homes the general standard of efficiency is very satisfactory.

From time to time suggestions have been found necessary for improvements, or alterations in already existing conditions. In every instance where such a suggestion has been made to the Keeper of a Home, a willing and satisfactory co-operation has ensued.



## CHILDREN AND YOUNG PERSONS ACTS, 1908-1932.

### Infant Life Protection.

All the Health Visitors in the County Child Welfare Area are appointed Infant Life Protection Visitors and make visits of inspection at intervals of at least once a quarter to each foster-mother and child registered.

At the end of the year there were 680 registered foster-children in the care of 444 foster-mothers.

During the year two Orders were obtained from Local Justices for the removal of children from foster-parents under Section 67 of the Act of 1932.

## MIDWIVES ACTS, 1902-1926.

(a) GENERAL. (i) The Borough of Barking made application to the Ministry of Health to become Local Supervising Authority in the Borough under the Midwives Acts, 1902-1926. The Minister, after consulting the County Council, complied with the application and issued the necessary Order to take effect from 1st April, 1935.

(ii) During the year the following arrangement was made between the County Council and adjoining Local Supervising Authorities :—

### *Liability to be a source of Infection.*

- (1) A midwife coming under Rule E.9 of the Central Midwives Board should notify all the Local Supervising Authorities in whose areas she practises.
- (2) (a) Where a midwife herself is the source of infection, the Authority in whose area she resides shall instruct the midwife regarding precautionary measures to be taken to prevent the spread of infection, including any suspension from practice that is necessary.
- (b) Where the midwife is in contact with a patient who is liable to be a source of infection to others, the Authority in whose area such patient resides shall instruct the midwife as in 2 (a).
- (3) The Local Supervising Authority suspending a midwife shall be the Authority responsible for the payment of compensation for a midwife's loss of practice, whether she is living in that Authority's Area or not.

### *General Supervision.*

It has been the usual practice to regard the residence of the midwife as determining which Local Supervising Authority shall be regarded as the Authority responsible for routine inspection and general control of the midwife, even though in the case of some midwives the bulk of her practice may be outside that area, arrangements being made for co-operation between the adjacent Local Supervising Authorities concerned in respect of patients attended by the midwife outside the area of the Authority in which she resides.



(iii) On 1st October, 1934, the Central Midwives Board issued a new edition of Section E of the Rules regulating the practice of midwives and introduced many important revisions, notably in the rules regarding laying-out the dead, use of drugs, sending for medical assistance, visits to patients with high temperature, facility for inspection, destruction of records, title and definition of the term "Maternity Nurse."

(b) PRACTISING MIDWIVES. During the year under review 347 midwives notified their intention to practise in the Administrative County, excluding the Colchester, Ilford, Leyton and Walthamstow Midwives. Of these, 301 were actually in practice at the end of the year 1934. These midwives are classified as follows :—

| Total No. of<br>Midwives in practice<br>at end of year. | Trained. |        | L.O.S.<br>Certificated. |        | Bona fide. |        |
|---------------------------------------------------------|----------|--------|-------------------------|--------|------------|--------|
|                                                         | Dep.     | Indep. | Dep.                    | Indep. | Dep.       | Indep. |
| 301 ..                                                  | 169 ..   | 123 .. | 2 ..                    | 6 ..   | ..         | 1      |

The total number of live births and still births which occurred during the year 1934 in the Administrative County, excluding Colchester, Ilford, Leyton and Walthamstow Boroughs, was 13,309, and of these, 5,732 (44.7 per cent.) were attended by midwives in the capacity of a midwife, and 2,945 (23 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, 1934, and it was found that 142 trained and 3 *bona fide* midwives attended 10 or less cases each, 69 trained and 4 *bona fide* attended 11-20 cases each, 47 trained and 1 *bona fide* attended 21-40 cases each, 14 trained and 1 *bona fide* attended 41-60 cases each, 13 trained attended 61-100 cases each, and 7 trained attended over 100 cases each.

(c) HANDYWOMEN. During the year 1934 reports were received regarding two cases of confinement attended by two women who were not certified and who it was alleged had acted as midwives without being under the direction and personal supervision of a registered medical practitioner. The necessary caution was given in each case.

(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 :—

|                                       | 1930.      | 1931.   | 1932.   | 1933.   | 1934. |
|---------------------------------------|------------|---------|---------|---------|-------|
| Records of Medical Aid                | .. 2285 .. | 2006 .. | 2036 .. | 2025 .. | 2089  |
| Records of Still-Births               | .. 117 ..  | 103 ..  | 96 ..   | 101 ..  | 102   |
| Deaths of Mothers ..                  | .. 10 ..   | 4 ..    | 5 ..    | 2 ..    | 1     |
| Deaths of Infants ..                  | .. 73 ..   | 78 ..   | 66 ..   | 76 ..   | 73    |
| Artificial Feeding ..                 | .. 78 ..   | 54 ..   | 54 ..   | 61 ..   | 77    |
| Liability to be a source of Infection | *303 ..    | *281 .. | *251 .. | *209 .. | *277  |
| Laying-out for Burial                 | .. 235 ..  | 258 ..  | 261 ..  | 293 ..  | 260   |
| Ophthalmia Neonatorum or Dis-         |            |         |         |         |       |
| charging Eyes ..                      | .. 294 ..  | 237 ..  | 237 ..  | 243 ..  | †199  |

\*This figure includes all cases of high temperature.

†Includes 23 cases notified as Ophthalmia Neonatorum.



### **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 1934, in one case of high temperature and one of discharging eyes, the rules of the Central Midwives Board were not properly carried out. Warning letters were sent to the midwives concerned.

The number of patients notified as suffering from Ophthalmia Neonatorum was 42, *i.e.*, 3.1 per one thousand live births.

### **Pemphigus Neonatorum.**

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

Enquiries were made into 22 suspected or actual cases occurring in Barking (3), Billericay (3), Braintree R. (2), Clacton (2), Dagenham (3), Grays (1), Orsett R. (1), Purfleet (1), and Tilbury (6).

### **Inspection Visits.**

Thirteen hundred and nine routine visits were made to midwives during the year, and of these 190 were undertaken by Assistant County Medical Officers and 1,119 by the Chief Health Nurse and her Assistant, and the Relief Health Visitor.

Written cautions were sent to 7 midwives for minor infringements of the rules other than those referred to in the paragraphs relating to Puerperal Fever, Ophthalmia Neonatorum and Pemphigus Neonatorum above.

One midwife was reported to the Central Midwives Board on account of immoral conduct, and her name was struck off the Roll and the Board made an Order prohibiting her from attending women in childbirth in any other capacity.

### **Doctors' Fees.**

In accordance with Section 14 of the Midwives Act, 1918, during the year ended 31st December, 1934, the County Council paid the sum of £2,174 15s. 6d. as fees to medical practitioners and recovered from patients during the year the sum of £800 13s. 6d.

The County Council considered the mileage fee payable under Clause 6 of the scale, and commencing 1st April, 1934, the following revision was put into operation :—

No mileage fee will be paid within a radius of 2 miles from the doctor's surgery. A fee of 1/- per mile, both on the outward and return journeys, will be allowed for the excess beyond the 2 miles radius for the first visit made for the confinement (*i.e.*, the 1st visit made during the period from the commencement of labour or during the subsequent ten days), such fee to be computed in quarter miles. For any other visits made under the Midwives Act, 1918, a fee of 6d. per mile both on the outward and return journeys will be allowed for the excess beyond the 2 miles radius, such fee to be computed in quarter miles.



The following comparative table is of interest, showing (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 percentage of confinements in which medical aid was sought is still increasing :—

| Year. | No. of Medical Aid<br>Notices received<br>from Midwives. |      | Percentage of<br>Confinements<br>attended by<br>Midwives in<br>which medical<br>aid was sought. |      | No. of Medical Aid<br>Notices for which<br>Doctors' claims have<br>been received. |      | Total amounts<br>of claims. |       |    | Amounts re-<br>covered from<br>patients. |    |     |    |   |
|-------|----------------------------------------------------------|------|-------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|-----------------------------|-------|----|------------------------------------------|----|-----|----|---|
|       |                                                          |      |                                                                                                 |      |                                                                                   |      | £                           | s.    | d. | £                                        | s. | d.  |    |   |
| 1930  | ..                                                       | 2285 | ..                                                                                              | 31.9 | ..                                                                                | 1507 | ..                          | 2,225 | 19 | 6                                        | .. | 689 | 11 | 3 |
| 1931  | ..                                                       | 2006 | ..                                                                                              | 33.8 | ..                                                                                | 1495 | ..                          | 2,106 | 15 | 6                                        | .. | 644 | 3  | 3 |
| 1932  | ..                                                       | 2036 | ..                                                                                              | 34.0 | ..                                                                                | 1564 | ..                          | 2,285 | 11 | 9                                        | .. | 593 | 15 | 9 |
| 1933  | ..                                                       | 2025 | ..                                                                                              | 34.9 | ..                                                                                | 1575 | ..                          | 2,527 | 12 | 6                                        | .. | 625 | 9  | 1 |
| 1934  | ..                                                       | 2089 | ..                                                                                              | 36.4 | ..                                                                                | 1628 | ..                          | 2,174 | 15 | 6                                        | .. | 800 | 13 | 6 |

### Lectures.

The Essex Midwives Association arranged a special course of Lectures in Chelmsford, which was held in April and May.

R. A. Brews, Esq., F.R.C.S., gave lectures entitled "Normal Labour," "Abnormal Labour, as encountered by Midwives," "The Puerperium, Normal and Abnormal," and "Common Clinical Disorders of the Infant during the first month after Labour."

The lectures were greatly appreciated by the 70 midwives who attended the Course. The County Council assisted the Association by a grant towards the lecturers' fees, travelling expenses, &c.

### Essex County Nursing Association.

(a) GENERAL. For the year 1934 the sum of £8,615 8s. 2d. was paid by the County Council to the County Nursing Association in accordance with the agreement.

(b) DISTRICT NURSING ASSOCIATIONS. At the end of 1934 the number of District Nursing Associations in the Administrative County which were affiliated to the County Nursing Association and which employed 185 Nurses, was as follows :—

| No. of affiliated D.N. Associations. | No. undertaking Midwifery and District Nursing. | No. performing Maternity and District Nursing duties only. |
|--------------------------------------|-------------------------------------------------|------------------------------------------------------------|
| 152                                  | .. 144                                          | .. 8 (4 of which undertake general nursing only).          |

District Nurses belonging to affiliated Associations during the year 1934 made the following visits :—Midwifery 36,462, Maternity 29,959, District General 217,177, District Tuberculosis 2,175, Health Visiting—Pre-natal 26,363, Post-natal 39,350, and Home Visits (School Children) 7,556.

Of the 152 affiliated Associations, 141 participate in the County Council's Combined Nursing Scheme.



## (d) PARISHES SERVED—

|                                                              |     |
|--------------------------------------------------------------|-----|
| Number in the County (excluding extra-Metropolitan area) ..  | 377 |
| Number served by affiliated District Nursing Associations .. | 342 |

**GENERAL.****(a) Maternal Mortality.**

On 10th October, 1934, the Ministry of Health issued Circular 1433, entitled "Maternal Mortality." This circular referred to previous ones containing suggestions for improving and developing the maternity services, and also referred to the Final Report issued by the Departmental Committee on Maternal Mortality and Morbidity in 1932.

A detailed report on the County services with recommendations, was submitted by the County Medical Officer and the following were agreed upon :—

- (a) That further Ante-Natal Clinics be established at suitable centres, *e.g.*, Burnham-on-Crouch, Dunmow, Ongar, Saffron Walden, &c. In addition, when local circumstances permit, clinics might also be established at Stansted, Brightlingsea, Chigwell, Rayleigh, Vange, &c.
- (b) It is suggested that the remaining parishes in the County Area not at present served by a Midwife, be so provided either through the Essex County Nursing Association or otherwise.
- (c) That further efforts be made to obtain the services of Regional Consultants, either in co-operation with medical practitioners or in conjunction with the hospitals in the districts to be served.
- (d) It is suggested that further steps be taken to improve the maternity accommodation in the County.
- (e) That efforts be made to extend the operation of the Provision of Milk and Home Helps Schemes.

The scheme was continued whereby a midwife practising in the County Child Welfare Area is allowed compensation of 10s. 6d. in respect of each patient referred to an Ante-Natal Clinic or a Medical Practitioner where the patient is admitted to hospital as a result. Six claims were paid during the year 1934.

In the previous year's report, details of the scheme were given under which the County Council pay a fee of £1 1s. for the services of an Anæsthetist called in by a medical practitioner engaged for a confinement. One claim was paid in 1934.

**(b) Birth Control.**

On 31st May, 1934, the Ministry of Health issued Circular 1408 on this subject, referring to previous circulars thereon.

The Minister indicated that he was of opinion "that where a Local Authority has provided a clinic at which medical advice and treatment are available for married women suffering from gynaecological conditions, and at which contraceptive advice



is afforded to married women so suffering in whose cases pregnancy would be detrimental to health, it would be proper also for married women who are suffering from other forms of sickness, physical or mental" . . . . . "which are detrimental to them as mothers, to be afforded contraceptive advice at the clinic if it is found medically that pregnancy would be detrimental to health."

The Grays U.D.C. established a similar clinic during the year 1934, and by arrangement County patients are permitted to attend.

In regard to Birth Control Clinics, Dr. Annie Gardiner reports as follows :—

"The Birth Control Clinic at Hornechurch was established in February, 1935, and has, I think, justified its existence. As I also attend the Ante-Natal Clinic and Child Welfare Centre in this area, suitable cases can be referred for contraceptive advice."

"While primarily intended for giving such advice, a few women suffering from minor gynaecological conditions have also come for consultation. This I think is a useful development, as there is little time at the Ante-Natal Clinics for attending to such patients. While expedient meantime, this practice will have to be discontinued as the contraceptive cases increase, and the establishment of gynaecological clinics should be considered."

### **(c) Nursery Schools.**

Efforts were made during the year to establish Nursery Schools, either through the Education Committee or as an experiment at one or two of the larger Combined Treatment Centres, and a suitable recommendation was made from the appropriate Subcommittee to the Education Committee. The Committee did not, however, feel able to agree with the provision of such schools at Combined Treatment Centres, pointing out that the report of the Board of Education Consultative Committee on Infant and Nursery Schools published in 1933 favoured the establishment of Nursery Schools on separate sites as being the most desirable, or combined with Infants' Departments as the best alternative.

The Education Committee stated that when the chief problem of providing accommodation for children of elementary school age has been overcome they intend to present a comprehensive report indicating means whereby the recommendations of the report mentioned above might be put into effect in the more populous parts of the Administrative County and that re-organisation in the populous areas, where the need for Nursery Schools will probably be the greatest, should be completed shortly. It will be easier to envisage by then the requirements in this particular respect and the accommodation problem generally.

### **(d) Diphtheria Immunization.**

This subject was referred to in some detail in the Report for the year 1933. During the year under review, by arrangement with the County Council, Local Sanitary Authorities at Chingford and Hornechurch have established Diphtheria Immunization Clinics at the County Centres and the County Council have co-operated by allowing their medical and nursing staff to assist in the work.



**(e) Prevention of Deafness.**

The following is an extract from my report as School Medical Officer for the year ended 31st December, 1934, and has a place in this report in connection with the Child Welfare Scheme :—

“ In accordance with the suggestions contained in the Ministry of Health Circular 1337a, issued in May, 1933, the Committee have given careful consideration to the early diagnosis of ear defects and to the necessary treatment with a view to the prevention of deafness. A preliminary survey carried out in the Chingford and Hornchurch areas has shown that there is ample need for increased facilities in this connection. As a result, an effort has now been made to grapple with this widespread condition and, during 1935, it is hoped that with the arrangements available, better results will be shown in the treatment of children before and during School attendance. There can be no doubt that, in order to achieve this, early and regular treatment is essential, and to facilitate this, all School Medical Inspectors, Child Welfare Officers and School Nurses have been asked to bring forward such cases as come to their notice for early treatment. For those who require specialist's advice, arrangements have been made for the services of Mr. Hamblen Thomas, F.R.C.S., to be available as occasion requires.”

**(f) Post-Graduate Course—Independent Midwives.**

No independent practising midwives participated in the scheme during the year.

**(g) Report of First Assistant C.M.O. (Dr. J. L. Miller Wood).**

**ANTE-NATAL CLINICS.** The attendances at the 17 Ante-Natal Clinics continue to be very satisfactory. At two of the largest Clinics extra sessions were instituted in order to deal more effectively with the work.

Two new Clinics were established at Billericay and South Benfleet during the year, and have already fully justified themselves.

Full use has been made of the Scheme for the provision of free milk for expectant mothers in those cases where this has been considered necessary. Particular care is taken at these Clinics not only of the physical condition of the expectant mother, but also of the psychological aspect. The popularity of these Clinics has been well borne out by the earnest endeavours of the expectant mothers themselves to attend regularly.

**CHILD WELFARE CENTRES.** A vast amount of useful work continues to be done through the Centres. A large proportion of this consists of advice pertaining to infant feeding. Many mothers, through strict instruction and encouragement, have thereby been able to continue breast feeding where otherwise they might have taken the line of least resistance and resorted to early bottle feeding.

The Scheme for the provision of milk for such cases has undoubtedly proved extremely helpful.



The appreciation by the mothers themselves of the value of the work of the Centres is repeatedly shown by their ready willingness and conscientious co-operation in carrying out advice given.

**WEIGHING CENTRES.** In accordance with previous practice where the needs of a district have justified it a Weighing Centre has been established.

**TODDLERS.** The attendances at the Special Toddlers Clinics established at Hornchurch Combined Treatment Centre in September, 1933, continue to be satisfactory. No further special sessions have been established. Toddlers appear to be attending better at the ordinary Child Welfare sessions, and mothers are becoming more alive to the advantages to be gained by bringing them to the Centres at regular intervals during the pre-school years.

#### (h) Report of Chief Health Nurse.

The Chief Health Nurse (Miss D. M. Landon) has furnished the following report in connection with her duties during 1934 :—

**HEALTH VISITING SERVICE.** The work of the Health Visitors is well maintained. The increased number of Health Centres in the County is a great advantage to the Health Visitors in carrying out the treatment recommended, but the drawback to these is that they may find it impossible to carry out even a minimum amount of home visiting.

It is the best type of mother who takes advantage of the facilities offered at the Combined Treatment Centres, and those who most need help and teaching always have to be approached in their own homes.

The Cookery lectures given by Mrs. Richardson have been greatly appreciated, not only for the excellent practical teaching, but for the attractive way in which it is given.

**INFANT LIFE PROTECTION.** Thanks to the very careful investigation of all applications to have foster-children, the standard of homes is gradually being improved. Although there will probably always be some which are not ideal, yet it seems almost impossible to find out what is actually wrong with the home.

**DISTRICT NURSING ASSOCIATIONS.** The County Nursing Association has carried out a satisfactory year's work and development, although one Association, Great and Little Bromley, has been compelled to disband owing to lack of support.

New Associations have been formed for Rowhedge and Tilbury, the latter having already to employ two nurse-midwives.

The District Nurses continue to co-operate satisfactorily with the Health Visitors, and in nearly all cases enjoy assisting at Ante-Natal Clinics and Child Welfare Centres.

I am sure the Health Exhibitions have helped to make the District Nursing Associations to appreciate the preventive side of their work and take a keener interest in health education.



### COMBINED MEDICAL SERVICE.

The Combined Medical Service Scheme, outlined in detail in previous reports, was continued during the year with the following alterations :—

(a) *Dagenham*. The Medical Officer of Health, Dr. E. W. C. Thomas, resigned to take up another appointment, and his place was taken from 1st October, 1934, by Dr. C. E. Herington. The arrangements outlined in last year's report were continued.

(b) *Brentwood*. Owing to the extension of the Brentwood Urban District under the Essex Review Order, 1934, it was necessary to revise the time and salary of Dr. B. F. Beatson, the Combined Medical Officer, so as to allow him to give, from 1st April, 1934, fifty per cent. of his time to Medical Officer of Health duties.

(c) *Benfleet, Rayleigh, Canvey Island, etc.* The growth of population and consequent increase in the work of the Medical Officer of Health in these districts necessitated a review of the arrangements between the County Council and Local Authorities and certain revisions in the allocations of salaries for the various appointments were made from 1st July, 1934, and again from 1st April, 1935.

(d) *Romford*. The Romford U.D.C. decided to appoint a whole-time Medical Officer of Health (Dr. J. B. Samson), and commencing 1st January, 1935, arrangements were made for him to supervise the school medical inspection work in the Urban District, and the County Council to pay £50 per annum to the District Council for this service.

(e) *General*. Other revisions pending in Chingford and Frinton Urban Districts will be referred to in next year's report.

### COMBINED TREATMENT CENTRES.

The following new Combined Treatment Centres were opened during the year under review :—

| Centre.                      | Date.                   |
|------------------------------|-------------------------|
| South Benfleet (London Road) | .. 8th February, 1934.  |
| Pitsea (The Broadway) ..     | .. 17th December, 1934. |

In September, 1934, it became necessary to seek other accommodation for the Grays School Clinic and Glasson House was secured temporarily until the new proposed Treatment Centre at Grays is erected.

Other new Combined Treatment Centres are in course of preparation and will be referred to in future reports.



## PART IV.

### PUBLIC ASSISTANCE.

#### General.

The year 1934 has been notable in several respects for the completion of preliminary survey work on four important aspects of Public Assistance Medical work. These deal with :—

- (1) The report and recommendations of the Special Committee concerned with the preparation of a comprehensive scheme for the accommodation of the sick in the County.
- (2) The recruitment and training of nurses specifically to deal with the care of the chronic sick and infirm.
- (3) The provision of a " Free Choice of Doctor Scheme " for the Domiciliary Medical Service.
- (4) The securing of efficient and adequate ambulance facilities for all areas of the County.

These Schemes are discussed in greater detail in this report, but it is not out of place here to state that considerable interest and comment have been caused by these surveys, an interest which has not been confined to the County of Essex.

In other directions there has been a steady increase in co-operation between the Central Office, the Medical Staff of Institutions and the District Medical Officers. As improvements and consolidation of the Public Assistance Medical Services occur, the benefits of the unified control and administration provided by the Local Government Act of 1929 are becoming increasingly apparent. It is early yet to evaluate the ultimate effect of this centralised control in Essex, but in the annual report for 1935 a review will be made of the working of five years of Poor Law by the County Council in so far as the sick poor are concerned. The year 1935 is particularly appropriate as it is the end of a five-year period, and is also the year for which a survey report is required by the Ministry of Health.

#### Provision for the Sick in Public Assistance Institutions.

Table XXI on page 96a shows the number of sick beds available on 31st December, 1934, in the eleven County Public Assistance Institutions, together with particulars of the number of patients admitted and discharged.

The outstanding features of the table are the figures relating to Oldchurch Hospital, Romford, which although still classified as a Public Assistance Institution, is actually functioning as a large General Hospital serving a population of 419,433.

#### Major Improvements carried out at Institutions during 1934.

*Epping.* Two 20-bed pavilions were opened for the reception of adult male and female patients suffering from pulmonary tuberculosis.



*Orsett.* An Isolation and Observation Block of 5 beds was erected and is now in use.

*Oldchurch Hospital, Romford.* In the report for 1933 reference was made to the addition of a second floor to Block "D" providing 78 beds. This is now in use, and another similar addition is in course of construction to Block "C."

### Children's Homes.

Below are appended details of the Children's Homes in the Administrative County :—

| Area.          | Address of Home.                                                               | Beds available<br>31-12-34. |        | Beds occupied<br>31-12-34. |        |
|----------------|--------------------------------------------------------------------------------|-----------------------------|--------|----------------------------|--------|
|                |                                                                                | Boys.                       | Girls. | Boys.                      | Girls. |
| Colchester     | .. Villa Road, Stanway                                                         | .. 26                       | 24     | .. 26                      | 19     |
| "              | .. Institution Grounds,<br>Tendring ..                                         | .. 30                       | 24     | .. 27                      | 23     |
| Braintree      | .. Friars House, 32, Bradford<br>Street, Bocking, Braintree                    | 16                          | 15     | .. 16                      | 15     |
| Saffron Walden | .. New Street, Dunmow                                                          | .. 6                        | 14     | .. 6                       | 9      |
| Epping         | .. Coopersale, Epping                                                          | .. 25                       | 19     | .. 25                      | 16     |
| South Eastern  | .. 61-63, Whitehall Road,<br>Little Thurrock                                   | .. —                        | 13     | .. —                       | 13     |
| Southern       | .. 5-8, Laurie Square, 42-44,<br>Brentwood Road, 26-88,<br>Manor Road, Romford | .. 96                       | 71     | .. 96                      | 71     |
| Chelmsford     | .. "Greenbourne," Writtle                                                      | 32                          | —      | .. 28                      | —      |
| "              | .. Beehive Lane, Great<br>Baddow                                               | .. —                        | 24     | .. —                       | 16     |
| "              | .. "The Gables," High Street,<br>Maldon                                        | .. 26                       | —      | .. 24                      | —      |
| "              | .. "Foxcroft," High Street,<br>Billericay                                      | .. —                        | 25     | .. —                       | 22     |

By arrangement between the County Council and the Invalid Children's Aid Association, six beds at the Mabel Greville Convalescent Home, Walton-on-Naze, are available for children of ages between 3 and 10 in the case of boys, and 3 and 12 in the case of girls, who are the responsibility of the Public Assistance Committee.

### Lady Supervisor.

Miss Snowden, appointed in March, 1934, has consolidated the work of her predecessor in this post. In particular, she has devoted special attention to the conditions in the Children's Homes in the Administrative County, and her supervision of the health and well-being of the children has been of the greatest value.

### Children's Summer Camp.

From August 2nd to 30th, 1934, a summer camp for children in various Children's Homes in the Administrative County was held on a site near the Tendring Institution a few miles from the sea. 177 children attended this camp, which was held under ideal weather conditions.



TABLE XXI.

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TABLE A SHOWING BEDS PROVIDED AND OCCUPIED FOR SICK, MATERNITY AND MENTAL CASES FOR THE 12 MONTHS ENDED  
31st DECEMBER, 1934, IN INSTITUTIONS BELONGING TO THE COUNTY COUNCIL.  
(As shown in the Return Hosp. 6).

| Area.            | Institution.      | Name, Address and 'Phone No. of Medical Officer.                                    | No. of Beds available. |              |                                | No. of Admissions. | No. of women confined. | Live-Births. | Still-Births. | Deaths among newly-born. | Deaths among Children under 1 year. | Maternal Deaths. | Total No. of Deaths. | No. of patients discharged. | No. of Beds occupied. |                 |                | No. of operations under general anaesthetics. | No. of Abdominal Sections. |
|------------------|-------------------|-------------------------------------------------------------------------------------|------------------------|--------------|--------------------------------|--------------------|------------------------|--------------|---------------|--------------------------|-------------------------------------|------------------|----------------------|-----------------------------|-----------------------|-----------------|----------------|-----------------------------------------------|----------------------------|
|                  |                   |                                                                                     | Men.<br>1.             | Women.<br>2. | Children*<br>(under 16).<br>3. |                    |                        |              |               |                          |                                     |                  |                      |                             | Average.<br>13.       | Highest.<br>14. | Lowest.<br>15. |                                               |                            |
| Colchester ..    | Colchester ..     | W. F. Payne, Sussex Lodge, Leaden Road, Colchester.<br>'Phone No. Colchester 2650.  | 74                     | 71           | 8                              | 363                | 17                     | 16           | 2             | —                        | —                                   | —                | 126                  | 214                         | 112                   | 138             | 96             | 18                                            | 1                          |
|                  | Stanway ..        | Do. Do.                                                                             | 34                     | 33           | —                              | 64                 | —                      | —            | —             | —                        | —                                   | —                | 30                   | 27                          | 50                    | 59              | 42             | —                                             | —                          |
|                  | Tendring ..       | F. Authill, Laurels, Great Bentley.<br>'Phone No. Great Bentley 11.                 | 48                     | 69           | 8                              | 261                | 19                     | 19           | 1             | —                        | 1                                   | —                | 78                   | 170                         | 102                   | 114             | 93             | 8                                             | —                          |
| Braintree ..     | Braintree ..      | T. W. Panter, Bradford Street, Bocking.<br>'Phone No. Braintree 13.                 | 31                     | 55           | 8                              | 165                | —                      | —            | —             | —                        | —                                   | —                | 76                   | 100                         | 81                    | 97              | 79             | —                                             | —                          |
|                  | Saffron Walden .. | J. Bartlett, Saffron Walden.<br>'Phone No. Saffron Walden 218.                      | 28                     | 54           | 1                              | 120                | 4                      | 4            | —             | —                        | 1                                   | —                | 33                   | 81                          | 59                    | 65              | 53             | 1                                             | —                          |
| Epping ..        | Epping ..         | R. Evans, Elm Bank, Station Road, Epping.<br>'Phone No. Epping 98.                  | 88                     | 125          | 8                              | 485                | 18                     | 18           | —             | —                        | 1                                   | —                | 88                   | 262                         | 144                   | 174             | 117            | 6                                             | —                          |
| South Eastern .. | Orsett ..         | F. A. M. Nelson, Orsett.<br>'Phone No. Orsett 47.                                   | 82                     | 117          | 21                             | 843                | 39                     | 39           | —             | 1                        | 5                                   | —                | 191                  | 655                         | 182                   | 294             | 154            | —                                             | —                          |
| Southern ..      | Romford ..        | W. S. O'Loughlin, Oldchurch Hospital, Romford.<br>'Phone No. Romford 1900.          | 309                    | 310          | 216                            | 7573               | 403                    | 366          | 45            | 26                       | 129                                 | 16               | 999                  | 6546                        | 821                   | 891             | 752            | 2509                                          | 950                        |
| Chelmsford ..    | Billerica ..      | J. D. Wells, Billerica.<br>'Phone No. Billerica 11.                                 | 38                     | 45           | 12                             | 811                | 49                     | 48           | 2             | 1                        | 2                                   | —                | 133                  | 695                         | 54                    | 72              | 36             | 128                                           | 67                         |
|                  | Chelmsford ..     | J. T. Whitley, Thorneybrook, London Road, Chelmsford.<br>'Phone No. Chelmsford 194. | 52                     | 71           | 6                              | 439                | 98                     | 84           | 14            | 6                        | 9                                   | 7                | 101                  | 538                         | 117                   | 137             | 102            | 29                                            | 6                          |
|                  | Malden ..         | M. J. T. Wallis, 24, High Street, Malden.<br>'Phone No. Malden 91.                  | 37                     | 29           | —                              | 226                | 4                      | 4            | —             | —                        | —                                   | —                | 44                   | 158                         | 39                    | 51              | 30             | 14                                            | —                          |
| Totals ..        |                   |                                                                                     | 812                    | 979          | 288                            | 11350              | 649                    | 598          | 64            | 34                       | 148                                 | 23               | 1899                 | 9356                        | 1761                  | 2002            | 1554           | 2635                                          | 1024                       |

\*Excluding Cots in Maternity Wards.



THESE ARE THE NAMES OF THE PERSONS WHOSE NAMES ARE  
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| NAME            | ADDRESS                     | CITY          |
|-----------------|-----------------------------|---------------|
| J. H. BROWN     | 1234 Main St.               | New York      |
| W. J. SMITH     | 5678 Elm St.                | Chicago       |
| T. R. JONES     | 9012 Oak St.                | Boston        |
| M. L. GARCIA    | 3456 Pine St.               | San Francisco |
| D. K. MILLER    | 7890 Maple St.              | Philadelphia  |
| S. P. WILSON    | 2345 Cedar St.              | Los Angeles   |
| R. H. DAVIS     | 6789 Birch St.              | Portland      |
| L. M. ROBERTS   | 10110 Spruce St.            | Seattle       |
| C. N. THOMAS    | 4567 Ash St.                | Denver        |
| B. A. HARRIS    | 8901 Hickory St.            | Nashville     |
| F. G. MARTIN    | 12345 Walnut St.            | Columbus      |
| K. J. ANDERSON  | 67890 Cherry St.            | Indianapolis  |
| N. S. KELLEY    | 101101 Poplar St.           | Cincinnati    |
| P. Q. BAKER     | 45678 Willow St.            | St. Louis     |
| Q. R. NELSON    | 89012 Sycamore St.          | Kansas City   |
| T. U. HENRY     | 123456 Magnolia St.         | Omaha         |
| V. W. GREEN     | 678901 Dogwood St.          | Des Moines    |
| X. Y. ADAMS     | 1011011 Redwood St.         | Toledo        |
| Z. A. BLACK     | 456789 Cypress St.          | Cleveland     |
| B. C. WHITE     | 890123 Juniper St.          | Akron         |
| D. E. HALL      | 1234567 Fir St.             | Dayton        |
| F. H. KING      | 6789012 Hemlock St.         | Richmond      |
| G. I. LEE       | 10110123 Larch St.          | Hartford      |
| H. J. PERKINS   | 45678901 Red Pine St.       | Springfield   |
| I. K. ROSS      | 89012345 White Pine St.     | Norfolk       |
| J. L. STEVENSON | 123456789 Spruce Pine St.   | Falmouth      |
| K. M. TAYLOR    | 678901234 Fir Pine St.      | Dorchester    |
| L. N. WATSON    | 1011012345 Hemlock Pine St. | Barnstable    |
| M. O. YOUNG     | 4567890123 Larch Pine St.   | Wareham       |



The visiting Medical Officer reports that during his visits the children appeared to be very happy and contented, and he hopes that as the camp, in his opinion, was a great success, it will be repeated each year.

### Medical Staff.

There were no changes in the Medical Officers of various Institutions during the year. Names are given in Table XXI on page 96a.

### Nursing Staff—Institutions.

Early in 1935 the County Medical Officer submitted a report regarding the establishment of nurses in all the Public Assistance Institutions with the exception of Oldchurch Hospital, Romford. The report followed a survey carried out by Miss Snowden, when the following among other points were taken into consideration :—

- (a) The need for the strengthening of the Nursing Staff in Institutions where long hours are being worked.
- (b) The desirability of increasing the off-duty time of the existing staff at certain Institutions.
- (c) Re-arrangement of existing staff, due to the increased use of beds which previously had been devoted to infirm patients and which were actually in use for the acute sick.

As a result of the Committee's consideration of this report the nursing staffs of the Public Assistance Institutions were revised and strengthened.

### Maternity.

There has been an increase in the volume of maternity work undertaken at the County Public Assistance Institutions during the year :—

|                                                       | 1934. | 1933. |
|-------------------------------------------------------|-------|-------|
| Total number of beds available for Maternity Cases .. | 69    | 64    |
| Total number of Maternity Cases admitted ..           | 649   | 592   |

The growth in the number of beds available is accounted for by increased accommodation at Colchester and Oldchurch.

Cases of Puerperal Fever and Pyrexia are, as far as is possible, admitted to the special units at the St. John's Hospital, Chelmsford, and Oldchurch Hospital, Romford. The treatment of these cases, needing as they do the highest medical and nursing skill and attention, cannot but be enhanced in value by the formation of such specialised units.

### Dietaries.

The permanent adoption of the dietaries introduced in October, 1932, is proving satisfactory, and by the introduction of minor modifications, have proved to be of great utility in Children's Homes.



## Treatment of Trachoma.

From time to time cases of trachoma occur in the County, and as this disease is found mainly in the poorer members of the community, these patients are usually the responsibility of the Public Assistance Committee. The disease is a serious one, requiring expert and prolonged treatment, and an arrangement has, therefore, been made with the London County Council whereby patients may be admitted to their Holborn and Finsbury Institution and receive treatment as out-patients at the Moorfield Eye Hospital. Other cases, when suitable, are treated at the London County Council Home at Swanley.

## Examinations of Bacteriological Specimens.

As reported in previous years, the Public Assistance Committee have made arrangements for the bacteriological examination of specimens from Public Assistance Institutions, &c., with Dr. J. F. Beale, Bacteriologist for Essex.

Dr. Beale has submitted the following report on the work carried out during 1934 :—

“The Public Assistance Institutions are general rather than special hospitals, and hence the character of the specimens differs from those of Group C. (see page 15).

The total number of specimens received from the Public Assistance Hospitals during 1934 was 1,398.

These included the following :—

### 1. *Specimens of Blood.*

The total number of specimens was 106, and these were submitted to the following examinations :—

|                                                        |    |    |    |
|--------------------------------------------------------|----|----|----|
| (a) Estimations of Blood Sugar                         | .. | .. | 17 |
| (b) Estimations of Blood Urea                          | .. | .. | 3  |
| (c) Cytological Examinations, differential counts, &c. | .. | .. | 20 |
| (d) Blood Cultures                                     | .. | .. | 15 |
| (e) Agglutination Reactions—                           |    |    |    |
| Typhoid-paratyphoid Group                              | .. | .. | 50 |
| Salmonella Group                                       | .. | .. | 2  |
| B. Abortus Group                                       | .. | .. | 3  |
| Dysentery Group                                        | .. | .. | 2  |

### 2. *Specimens of Faeces.*

|                           |    |    |    |
|---------------------------|----|----|----|
| Total number of Specimens | .. | .. | 54 |
|---------------------------|----|----|----|

The examinations carried out were :—

|                                                    |    |    |    |
|----------------------------------------------------|----|----|----|
| (a) General microscopical examination              | .. | .. | 19 |
| (b) Microscopical examination for tubercle bacilli | .. | .. | 17 |
| (c) Bacteriological examination—cultural           | .. | .. | 54 |



3. *Specimens of Urine.*

|                           |    |    |    |    |
|---------------------------|----|----|----|----|
| Total number of Specimens | .. | .. | .. | 65 |
|---------------------------|----|----|----|----|

The examinations carried out were :—

|                                                    |    |    |    |
|----------------------------------------------------|----|----|----|
| (a) General microscopical examination              | .. | .. | 57 |
| (b) Microscopical examination for tubercle bacilli | .. | .. | 55 |
| (c) Chemical examination                           | .. | .. | 51 |
| (d) Bacteriological examination—cultural           | .. | .. | 54 |
| (e) Special examination—estimation of lead content | .. | .. | 1  |

4. *Specimens of Cerebro-Spinal Fluid.*

|                           |    |    |    |    |
|---------------------------|----|----|----|----|
| Total number of Specimens | .. | .. | .. | 79 |
|---------------------------|----|----|----|----|

These were submitted to the following examinations :—

|                                                    |    |    |    |    |
|----------------------------------------------------|----|----|----|----|
| (a) Cytological examination                        | .. | .. | .. | 65 |
| (b) Chemical examination                           | .. | .. | .. | 60 |
| (c) Microscopical examination for tubercle bacilli | .. | .. | .. | 65 |
| (d) Bacteriological examination—cultural           | .. | .. | .. | 49 |
| (e) Special examinations—Wassermann Reaction       | .. | .. | .. | 2  |
| Urea Estimation                                    | .. | .. | .. | 2  |

5. *Specimens of Pleural Fluid.*

28 specimens were received and submitted to the following examinations :—

|                                                    |    |    |    |    |
|----------------------------------------------------|----|----|----|----|
| (a) Cytological examination                        | .. | .. | .. | 28 |
| (b) Microscopical examination for tubercle bacilli | .. | .. | .. | 28 |
| (c) Bacteriological examination—cultural           | .. | .. | .. | 26 |

6. *Fluids from Joints, Abdomen, &c.*

11 specimens were examined as follows :—

|                                                    |    |    |    |    |
|----------------------------------------------------|----|----|----|----|
| (a) General microscopic examination                | .. | .. | .. | 11 |
| (b) Microscopical examination for tubercle bacilli | .. | .. | .. | 11 |
| (c) Bacteriological examination—cultural           | .. | .. | .. | 10 |

7. *Specimens of Pus.*

73 specimens were examined as follows :—

|                                                    |    |    |    |    |
|----------------------------------------------------|----|----|----|----|
| (a) General microscopical examination              | .. | .. | .. | 73 |
| (b) Microscopical examination for tubercle bacilli | .. | .. | .. | 66 |
| (c) Bacteriological examination—cultural           | .. | .. | .. | 67 |

8. *Specimens of Sputum.*

224 specimens were submitted to the following examinations :—

|                                                    |    |    |    |     |
|----------------------------------------------------|----|----|----|-----|
| (a) General microscopical examination              | .. | .. | .. | 5   |
| (b) Microscopical examination for tubercle bacilli | .. | .. | .. | 224 |
| (c) Bacteriological examination—cultural           | .. | .. | .. | 3   |



Of the 224 examinations for tubercle bacilli, 116, or 51.8, gave positive results.

9. *Swabs from Throat, Nose and Ear.*

The total number received was 615, all of which were examined culturally for diphtheria bacilli. 75, or 12.2 per cent., gave a positive result. A number of these swabs were also examined microscopically for organisms of Vincent's Angina, &c., and 10 were submitted to complete bacteriological examination.

10. *Specimens of Uterine and Vaginal Discharges.*

26 specimens were received and all were submitted to general bacteriological examination, both by microscopical and cultural methods.

11. *Specimens of Hairs.*

15 specimens of hairs and skin scrapings were examined for Ringworm fungus, which was found in four cases.

12. *Histological Examinations.*

84 specimens of tissue were received for histological examination. Slides of the stained sections are often supplied on request.

13. *Miscellaneous.*

(a) *Animal Inoculation Tests—*

4 specimens of urine were examined for tubercle bacilli.

1 specimen of pus was examined for tubercle bacilli.

1 specimen of Pleural Fluid was examined for tubercle bacilli.

3 cultures of Diphtheria bacilli were examined for tubercle bacilli.

(b) *Vaccines—*

1 autogenous vaccine was prepared."

**Representative Consultative Committee, British Medical Association.**

This Committee, formed in 1933, held meetings during the year, and discussed with the County Medical Officer a wide variety of subjects. Among these subjects the following, which are germane to Public Assistance work, were considered :—Contract medical attendance for poor persons ; the open choice of doctor system ; card index system for District Medical Officers ; and the working of certain sections of the Local Government Act of 1929.

The Committee fulfils a most useful function in maintaining a liason between the Public Health Department and the General Practitioners of the County, and in practice this co-operation and collaboration proves most valuable.



## Special Reports.

### PROVISION OF HOSPITAL SERVICES.

In August, 1934, the County Medical Officer issued a report on the accommodation and medical classification of patients in Public Assistance Institutions in the County; included also was a review of the Voluntary Hospital accommodation. This report was considered by the Special Committee appointed by the County Council to prepare a scheme for the allocation of existing Institutions and the provision of any necessary extra accommodation. This Committee made the following report and recommendations to the County Council which were approved in January, 1935 :—

1. That in the Southern area of the County sites be acquired for :—
  - (a) a new hospital of ultimately 500 beds.
  - (b) a new convalescent hospital or home of approximately 100 beds.
2. That in the South-Western area of the County suitable sites be acquired for :—
  - (a) a new hospital of ultimately 500 beds for acute cases.
  - (b) a new hospital of ultimately 800 beds for chronic and infirm cases.
  - (c) a new convalescent hospital or home of approximately 100 beds.

At the present time (July, 1935) negotiations are proceeding for the purchase of suitable sites for the provision of hospitals in the Southern and South-Western areas.

The closest co-operation is being maintained with the governing bodies of the voluntary hospitals in these areas so that harmonious working and the avoidance of seeming competition can be effected.

### RECRUITMENT OF NURSES.

In common with other County Councils, Essex has for some time experienced increasing difficulty in providing nurses for the care of the chronic sick and infirm. This class of patient comprises up to 90 per cent. of the cases for whom the Public Assistance Committee is responsible, and while they are not in need of those specialised nursing facilities required for the acutely ill, they do nevertheless, still require nursing. Curiously, it is impossible to get trained nurses to undertake this work, and, therefore, to provide a nursing service of the requisite standard of efficiency a scheme—which has become known as the “ Essex Scheme ”—has been evolved.

This Scheme recognises and accepts the principle that the nursing of the chronic sick is a special service calling for particular methods of recruitment and training. To any woman over 18, providing she is healthy and of good character, the scheme offers a career. The basic points of the Scheme are as follows :—

- (a) Accepted candidates will, in the first place, be allocated for training to the Epping or Orsett Institutions.



- (b) The training course will last two years, and candidates passing the examination at the end of this period, will be granted a certificate by the County Council, stating their competence to nurse the chronic sick.
- (c) Candidates will receive £30 per annum for the first year, £35 per annum for the second year, together with the usual residential emoluments.
- (d) Candidates will be required to sign an undertaking to remain in the service of the Public Assistance Committee for at least one year after the successful termination of the course of training.

On passing the final examination the Assistant Nurse, as she will then be termed, will be appointed to a permanent pensionable post in the County at a salary of £55 per annum, rising by annual increments of £2 10s. to £65 per annum, plus emoluments valued at £70 per annum.

A Sister Tutor for the instruction of these nurses has been appointed, and will divide her time between the Orsett and Epping Institutions. The first group of candidates under the scheme began their training on March 1st, 1935.

It must be emphasised that the "Essex Scheme" marks a new epoch in Public Assistance work, and is of national importance. It has aroused great interest in the various Administrative Bodies concerned with Nursing Services. Clearly, the official recognition of a new class of nurse not so highly qualified as those nurses holding State Certificates is a most important event. It is, however, an event which is unavoidable if an efficient and competent nursing service is to be created for the care of the chronic and infirm patients in Public Assistance Institutions.

#### THE "FREE CHOICE OF DOCTOR" SCHEME.

On April 1st, 1930, the County Council became responsible for the domiciliary medical services previously administered by various Boards of Guardians. In all, some 112 District Medical Officers, whose salaries varied from £10 to £800 per annum, became subject to this unified administration. It was found that no standard rate of remuneration existed, and that different Boards of Guardians had had very diverse and varying ideas on this question. In certain areas the records of work done showed great variation, and this rendered most difficult correlation of the work done with the district acreage and population, and the salary paid. To obviate this difficulty the present Card Index Register System was inaugurated in April, 1933, and is, with very few exceptions, proving satisfactory.

From this system data has been obtained so that a standard policy for the District Medical Services of the Administrative County can, in due course, be formulated. All new appointments of District Medical Officers have, therefore, been on a temporary yearly basis until such a policy can be brought into operation. Essex showing such marked extremes in population density, presents peculiar difficulties, and much time has been devoted throughout the year to the examination of various methods which could serve in areas of the County sufficiently large to provide an experimental field.



It is proposed to introduce the "free choice of Doctor" scheme in Clacton, Walthamstow and Chingford, payment to be made on a capitation basis. After the scheme has been in operation for an initial trial period, the results can be analysed, and, if required, modifications made in order that an efficient and reliable scheme can be introduced into other parts of the county. It is hoped to commence the service in the areas mentioned above in 1936, when a more comprehensive report will be made.

#### AMBULANCE FACILITIES.

In last year's report, reference was made to the survey of the ambulance services of the County, and the conferences held of Regional Committees to discuss the reciprocal use of ambulances. For these Committees the County has been divided into five regions, consisting of the Sanitary Districts as indicated below :—

- |                             |                          |
|-----------------------------|--------------------------|
| 1. Braintree & Bocking U.D. | 2. Brightlingsea U.D.    |
| Braintree R.D.              | Clacton U.D.             |
| Dunmow R.D.                 | Colchester B.            |
| Halstead U.D.               | Frinton & Walton U.D.    |
| Halstead R.D.               | Harwich B.               |
| Saffron Walden B.           | Lexden & Winstree R.D.   |
| Saffron Walden R.D.         | Tendring R.D.            |
|                             | West Mersea U.D.         |
|                             | Wivenhoe U.D.            |
| 3. Billericay U.D.          | 4. Barking B.            |
| Brentwood U.D.              | Chigwell U.D.            |
| Burnham-on-Crouch U.D.      | Chingford U.D.           |
| Chelmsford B.               | Dagenham U.D.            |
| Chelmsford R.D.             | Epping U.D.              |
| Maldon B.                   | Epping R.D.              |
| Maldon R.D.                 | Hornchurch U.D.          |
| Ongar R.D.                  | Ilford B.                |
| Witham U.D.                 | Leyton B.                |
|                             | Romford U.D.             |
| 5. Benfleet U.D.            | Waltham Holy Cross U.D.  |
| Canvey Island U.D.          | Walthamstow B.           |
| Grays U.D.                  | Wanstead & Woodford U.D. |
| Orsett R.D.                 |                          |
| Purfleet U.D.               |                          |
| Rayleigh U.D.               |                          |
| Rochford R.D.               |                          |
| Tilbury U.D.                |                          |

Throughout the year details of proposed schemes have been discussed by the County Council, Local Authorities, and Hospital Boards in the various regions. An agreement to give effect to the reciprocal use of ambulance services was prepared as a result of the negotiations, and has been circulated to the Authorities concerned. At the time of writing it appears that the scheme is approaching successful fruition.



The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The second part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The third part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The fourth part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The fifth part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The sixth part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The seventh part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The eighth part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The ninth part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter. The tenth part is devoted to a detailed analysis of the problem. It is shown that the problem is of great importance in the theory of the structure of matter.



**PART V.**  
**TABLE XXII.**  
**BIRTHS, DEATHS, ANNUAL RATES, &c., 1934.**

| URBAN.             | Estimated Population. | Deaths of Various Ages (Figures supplied by Medical Officers of Health.) |                         |                         |                          |                          |                          |                          |                          |                          |                             | Annual Rates per 1,000 of Estimated Population |          |                         |                         | Change in 1934.          | Mortality Ratio. |      |      |      |      |      |     |    |
|--------------------|-----------------------|--------------------------------------------------------------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------|------------------------------------------------|----------|-------------------------|-------------------------|--------------------------|------------------|------|------|------|------|------|-----|----|
|                    |                       | Infants, Children's, &c.                                                 |                         |                         |                          |                          |                          |                          |                          |                          |                             | Deaths.                                        |          |                         |                         |                          |                  |      |      |      |      |      |     |    |
|                    |                       | Infants.                                                                 | Children under 5 years. | Children 5 to 14 years. | Children 15 to 24 years. | Children 25 to 34 years. | Children 35 to 44 years. | Children 45 to 54 years. | Children 55 to 64 years. | Children 65 to 74 years. | Children 75 years and over. | Total Deaths.                                  | Infants. | Children under 5 years. | Children 5 to 14 years. | Children 15 to 24 years. |                  |      |      |      |      |      |     |    |
| Blackburn          | 72,359                | 1,232                                                                    | 56                      | 580                     | 71                       | 21                       | 14                       | 25                       | 37                       | 25                       | 45                          | 150                                            | 83       | 500                     | 173                     | 81                       | 0.41             | 0.72 | 1.99 | 1.25 | 30.1 | 37   |     |    |
| Bolton             | 15,960                | 128                                                                      | 9                       | 172                     | 9                        | 4                        | 3                        | 5                        | 12                       | 15                       | 21                          | 34                                             | 31       | 172                     | 124                     | 124                      | 0.14             | 0.22 | 1.51 | 0.81 | 10.5 | 33   |     |    |
| Bury               | 21,045                | 26,000                                                                   | 142                     | 100                     | 19                       | 2                        | 4                        | 7                        | 9                        | 10                       | 19                          | 24                                             | 37       | 57                      | 212                     | 118                      | 120              | 0.24 | 0.80 | 1.19 | 0.8  | 10.6 | 22  |    |
| Manchester         | 12,716                | 14,035                                                                   | 141                     | 6                       | 121                      | 8                        | 8                        | 1                        | 4                        | 5                        | 8                           | 21                                             | 24       | 42                      | 113                     | 95                       | 0.23             | 0.63 | 0.78 | 0.78 | 9.0  | 35   |     |    |
| Oldham             | 37,435                | 28,150                                                                   | 252                     | 12                      | 260                      | 8                        | 9                        | 1                        | 4                        | 8                        | 7                           | 16                                             | 9        | 13                      | 22                      | 102                      | 118              | 95   | 0.56 | 0.27 | 0.05 | 0.1  | 8.7 | 32 |
| Rochdale           | 4,145                 | 31                                                                       | 1                       | 62                      | 1                        | 1                        | 1                        | 1                        | 1                        | 1                        | 1                           | 1                                              | 1        | 1                       | 1                       | 1                        | 1                | 1    | 0.24 | 1.45 | 0.6  | 3.9  | 32  |    |
| Stockport          | 3,600                 | 1,009                                                                    | 45                      | 1                       | 109                      | 1                        | 1                        | 1                        | 1                        | 1                        | 1                           | 1                                              | 1        | 1                       | 1                       | 1                        | 1                | 1    | 0.57 | 2.59 | 0.75 | 30.8 | 32  |    |
| Salford            | 4,865                 | 4,865                                                                    | 34                      | 4                       | 28                       | 3                        | 3                        | 1                        | 1                        | 1                        | 1                           | 1                                              | 1        | 1                       | 1                       | 1                        | 1                | 1    | 0.54 | 0.28 | 0.1  | 14.5 | 32  |    |
| Salford & District | 28,080                | 28,302                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |
| Salford & District | 14,120                | 14,320                                                                   | 212                     | 14                      | 188                      | 8                        | 8                        | 5                        | 3                        | 5                        | 5                           | 7                                              | 17       | 33                      | 66                      | 108                      | 116              | 1.02 | 0.22 | 0.05 | 0.1  | 14.5 | 32  |    |
| Salford & District | 27,841                | 27,841                                                                   | 307                     | 21                      | 257                      | 19                       | 2                        | 4                        | 4                        | 6                        | 8                           | 13                                             | 17       | 29                      | 78                      | 102                      | 160              | 1.05 | 0.42 | 0.28 | 0.3  | 14.5 | 32  |    |











TABLE XXIV.

## NOTIFICATIONS OF INFECTIOUS DISEASE AND ATTACK RATES, 1934.

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(Figures obtained from the Weekly Notification Returns.)

| SANITARY DISTRICTS.           | Estimated<br>Population<br>1934. | SCARLET<br>FEVER. |               | DIPHTHERIA. |               | ENTERIC<br>FEVER. |               | PUERPERAL<br>FEVER. | PUERPERAL<br>PYREXIA. | ERYSIPELAS. |               | OPHTHALMIA<br>NEONATORUM. | PNEUMONIA. |               | ENCEPHAL-<br>ITIS LE-<br>THARGICA. | ACUTE<br>POLIO-<br>MYELITIS. | SMALL-<br>POX. | VARI-<br>OUS. | TOTAL |
|-------------------------------|----------------------------------|-------------------|---------------|-------------|---------------|-------------------|---------------|---------------------|-----------------------|-------------|---------------|---------------------------|------------|---------------|------------------------------------|------------------------------|----------------|---------------|-------|
|                               |                                  | No.               | Per<br>1,000. | No.         | Per<br>1,000. | No.               | Per<br>1,000. | No.                 | No.                   | No.         | Per<br>1,000. | No.                       | No.        | Per<br>1,000. | No.                                | No.                          | No.            | No.           |       |
| URBAN.                        |                                  |                   |               |             |               |                   |               |                     |                       |             |               |                           |            |               |                                    |                              |                |               |       |
| BARKING B. ....               | 72290                            | 521               | 7.20          | 391         | 5.41          | 4                 | .05           | 2                   | 9                     | 44          | .61           | 20                        | 168        | 2.32          | 2                                  | 2                            | ...            | 434           | 1697  |
| BENFLEET ....                 | 13900                            | 43                | 3.09          | 21          | 1.51          | ...               | ...           | ...                 | ...                   | 1           | .07           | ...                       | 2          | .14           | ...                                | ...                          | ...            | 3             | 70    |
| BILLERICAY ....               | 21045                            | 56                | 2.66          | 50          | 2.38          | 1                 | .05           | ...                 | 1                     | 3           | .14           | ...                       | 5          | .24           | ...                                | ...                          | ...            | 12            | 128   |
| BRAINTREE ....                | 12746                            | 24                | 1.88          | 7           | .55           | ...               | ...           | 1                   | ...                   | 4           | .31           | ...                       | 8          | .63           | ...                                | ...                          | ...            | ...           | 44    |
| BRENTWOOD ....                | 21435                            | 72                | 3.36          | 58          | 2.71          | 2                 | .09           | 1                   | 1                     | 10          | .47           | ...                       | 6          | .28           | ...                                | ...                          | ...            | 8             | 158   |
| BRIGHTLINGSEA ....            | 4143                             | 2                 | .48           | ...         | ...           | ...               | ...           | ...                 | ...                   | ...         | ...           | ...                       | 2          | .48           | ...                                | ...                          | ...            | ...           | 4     |
| BURNHAM-ON-CROUCH ....        | 3480                             | 1                 | .29           | ...         | ...           | ...               | ...           | ...                 | ...                   | 2           | .57           | ...                       | ...        | ...           | ...                                | ...                          | ...            | ...           | 26    |
| CANVEY ISLAND ....            | 4883                             | 10                | 2.05          | 13          | 2.66          | ...               | ...           | ...                 | ...                   | 2           | .41           | 1                         | ...        | ...           | ...                                | ...                          | ...            | ...           | 107   |
| CHELMSFORD B. ....            | 28039                            | 72                | 2.57          | 2           | .07           | 1                 | .04           | ...                 | 15                    | 9           | .32           | 1                         | 4          | .14           | ...                                | 3                            | ...            | ...           | 94    |
| CHIGWELL ....                 | 18350                            | 53                | 2.89          | 28          | 1.53          | 1                 | .05           | ...                 | 7                     | 4           | .22           | ...                       | 5          | .27           | ...                                | ...                          | ...            | 2             | 191   |
| CHINGFORD ....                | 27841                            | 134               | 4.81          | 29          | 1.04          | ...               | ...           | 1                   | 2                     | 3           | .32           | ...                       | 7          | .25           | 2                                  | ...                          | ...            | ...           | 40    |
| CLACTON-ON-SEA ....           | 19130                            | 41                | 2.14          | 20          | 1.05          | ...               | ...           | ...                 | 3                     | 6           | .31           | ...                       | 1          | .05           | 1                                  | ...                          | ...            | 40            | 112   |
| COLCHESTER B. ....            | 59767                            | 233               | 4.59          | 43          | .85           | 1                 | .02           | 4                   | 3                     | 29          | .57           | ...                       | 73         | 1.44          | 1                                  | ...                          | ...            | 387           | 774   |
| DAENHAM ....                  | 98710                            | 755               | 7.65          | 328         | 3.32          | 9                 | .09           | 4                   | 5                     | 31          | .31           | 1                         | 135        | 1.37          | 1                                  | 1                            | ...            | 10            | 1280  |
| EFFING ....                   | 5350                             | 10                | 1.88          | 9           | 1.69          | ...               | ...           | ...                 | 2                     | 3           | .66           | ...                       | 4          | .75           | ...                                | ...                          | ...            | 94            | 122   |
| FRINTON & WALTON ....         | 4469                             | 23                | 3.56          | 14          | 2.16          | ...               | ...           | ...                 | 2                     | 31          | .2            | ...                       | ...        | ...           | ...                                | ...                          | ...            | 16            | 35    |
| GRAYS ....                    | 19020                            | 81                | 4.26          | 37          | 1.94          | 1                 | .05           | ...                 | 13                    | 13          | .68           | ...                       | 16         | .84           | ...                                | ...                          | ...            | ...           | 151   |
| HALESTAD ....                 | 5901                             | 31                | 5.25          | ...         | ...           | ...               | ...           | ...                 | 1                     | 2           | .34           | ...                       | 1          | .16           | ...                                | ...                          | ...            | ...           | 35    |
| HARWICH B. ....               | 12780                            | 24                | 1.88          | 18          | 1.41          | ...               | ...           | ...                 | ...                   | ...         | ...           | ...                       | 8          | .92           | ...                                | ...                          | ...            | ...           | 50    |
| HORNCHURCH ....               | 52256                            | 226               | 4.33          | 160         | 3.06          | 1                 | .02           | 1                   | 6                     | 19          | .95           | 2                         | 26         | .50           | ...                                | ...                          | ...            | 2             | 442   |
| ILFORD B. ....                | 146070                           | 461               | 3.16          | 342         | 2.34          | 6                 | .04           | 5                   | 12                    | 54          | .37           | 16                        | 160        | 1.09          | ...                                | 2                            | ...            | 352           | 1410  |
| LEYTON B. ....                | 123430                           | 480               | 5.51          | 285         | 2.97          | 1                 | .008          | 8                   | 14                    | 86          | .70           | 6                         | 108        | .87           | 1                                  | 3                            | ...            | 15            | 1177  |
| MALDON B. ....                | 8353                             | 5                 | .60           | 5           | .60           | ...               | ...           | ...                 | ...                   | 5           | .63           | 1                         | 3          | .36           | ...                                | ...                          | ...            | 3             | 22    |
| PURFLEET ....                 | 8780                             | 52                | 5.92          | 26          | 2.96          | ...               | ...           | ...                 | 2                     | 6           | .68           | ...                       | 7          | .80           | ...                                | ...                          | ...            | ...           | 93    |
| RATLEIGH ....                 | 7087                             | 12                | 1.69          | 30          | 4.23          | 1                 | .14           | 1                   | ...                   | ...         | ...           | ...                       | ...        | ...           | 1                                  | ...                          | ...            | 1             | 46    |
| ROMFORD ....                  | 46026                            | 188               | 4.08          | 194         | 4.21          | 3                 | .06           | 3                   | 4                     | 14          | .30           | 4                         | 18         | .39           | ...                                | ...                          | ...            | 1             | 429   |
| SAFFRON WALDEN B. ....        | 6223                             | 38                | 6.11          | 2           | .32           | ...               | ...           | 1                   | ...                   | ...         | ...           | ...                       | ...        | ...           | ...                                | ...                          | ...            | ...           | 41    |
| TILBURY ....                  | 16510                            | 86                | 5.21          | 85          | 5.15          | 2                 | .12           | ...                 | 2                     | 7           | .42           | 5                         | 39         | 2.36          | ...                                | ...                          | ...            | 7             | 269   |
| WALTHAM HOLY CROSS ....       | 7034                             | 37                | 5.26          | 7           | 1.01          | ...               | ...           | ...                 | 7                     | 7           | 1.00          | 1                         | 24         | 3.41          | ...                                | ...                          | ...            | 1             | 77    |
| WALTHAMSTOW B. ....           | 135090                           | 600               | 4.44          | 273         | 2.02          | 2                 | .001          | 11                  | 29                    | 65          | .48           | 5                         | 177        | 1.31          | ...                                | ...                          | 1              | 1390          | 2553  |
| WANSTEAD & WOODFORD ....      | 47885                            | 217               | 4.53          | 70          | 1.46          | 1                 | .02           | 3                   | 4                     | 28          | .58           | ...                       | 34         | .71           | ...                                | 2                            | ...            | 142           | 501   |
| WEST MERSEA ....              | 2265                             | 6                 | 2.65          | ...         | ...           | ...               | ...           | ...                 | ...                   | ...         | ...           | ...                       | 6          | 2.21          | 1                                  | ...                          | ...            | ...           | 12    |
| WITHAM ....                   | 6970                             | 77                | 11.05         | 2           | .29           | ...               | ...           | 2                   | ...                   | 3           | .43           | ...                       | 7          | 1.00          | ...                                | ...                          | ...            | ...           | 92    |
| WIVENHOE ....                 | 2226                             | ...               | ...           | ...         | ...           | ...               | ...           | ...                 | ...                   | 1           | .45           | ...                       | ...        | ...           | ...                                | ...                          | ...            | ...           | 1     |
|                               | 1062464                          | 4871              | 4.58          | 2519        | 2.37          | 37                | .03           | 49                  | 125                   | 469         | .44           | 63                        | 1053       | .99           | 10                                 | 13                           | 1              | 2957          | 12167 |
| RURAL.                        |                                  |                   |               |             |               |                   |               |                     |                       |             |               |                           |            |               |                                    |                              |                |               |       |
| *BILLERICAY ....              | 11510                            | 96                | 8.34          | 27          | 2.35          | 2                 | .17           | 1                   | ...                   | 9           | .78           | ...                       | 12         | 1.04          | ...                                | ...                          | ...            | 55            | 202   |
| *BRAINTREE ....               | 16786                            | 65                | 3.87          | 16          | .95           | 1                 | .06           | 1                   | ...                   | 8           | .48           | ...                       | 16         | .95           | 1                                  | ...                          | ...            | 1             | 169   |
| CHELMSFORD ....               | 30029                            | 81                | 2.70          | 11          | .37           | ...               | ...           | 2                   | ...                   | 9           | .30           | ...                       | 15         | .50           | ...                                | ...                          | ...            | ...           | 121   |
| DUNHLOW ....                  | 16081                            | 52                | 3.23          | 1           | .06           | ...               | ...           | ...                 | 3                     | 4           | .44           | ...                       | 11         | .68           | ...                                | ...                          | ...            | ...           | 75    |
| DUNHLOW ....                  | 14224                            | 33                | 2.32          | 17          | 1.19          | 2                 | .14           | ...                 | 1                     | 4           | .28           | ...                       | 21         | 1.48          | ...                                | ...                          | ...            | 79            | 158   |
| EFFING ....                   | 15766                            | 55                | 3.49          | 2           | .13           | 2                 | .13           | ...                 | 7                     | 7           | .44           | ...                       | 1          | .06           | ...                                | 1                            | ...            | 1             | 69    |
| *HALESTAD ....                | 19791                            | 67                | 3.38          | 4           | .20           | 2                 | .10           | ...                 | ...                   | 13          | .66           | ...                       | 14         | .71           | ...                                | ...                          | ...            | 2             | 104   |
| LEXDEN AND WINSTREE ....      | 14352                            | 46                | 3.20          | 21          | 1.46          | ...               | ...           | 2                   | ...                   | 5           | .35           | 4                         | 4          | .28           | ...                                | ...                          | ...            | ...           | 80    |
| MALDON ....                   | 12500                            | 36                | 2.88          | 9           | .72           | 1                 | .08           | ...                 | 1                     | 3           | .16           | 1                         | 13         | 1.04          | ...                                | ...                          | ...            | 1             | 67    |
| ONGAR ....                    | 23240                            | 60                | 2.58          | 39          | 1.68          | 2                 | .09           | ...                 | 4                     | 7           | .30           | ...                       | 33         | 1.42          | ...                                | 1                            | ...            | ...           | 146   |
| OSBETT ....                   | 15460                            | 43                | 2.78          | 38          | 2.46          | ...               | ...           | 2                   | ...                   | 7           | .45           | 3                         | 13         | .84           | ...                                | ...                          | ...            | ...           | 106   |
| ROCHFORD ....                 | 4703                             | 35                | 7.44          | 3           | .64           | ...               | ...           | ...                 | ...                   | 3           | .64           | 1                         | 8          | 1.70          | ...                                | ...                          | ...            | ...           | 50    |
| SAFFRON WALDEN ....           | 13974                            | 24                | 1.72          | 3           | .21           | ...               | ...           | 1                   | 1                     | 4           | .29           | ...                       | ...        | ...           | ...                                | ...                          | ...            | ...           | 33    |
| *STANSTED ....                | 1783                             | 1                 | .56           | ...         | ...           | ...               | ...           | ...                 | ...                   | ...         | ...           | ...                       | 1          | .66           | ...                                | ...                          | ...            | ...           | 2     |
| TENDRING ....                 | 23287                            | 95                | 4.08          | 7           | .30           | 1                 | .04           | ...                 | ...                   | 6           | .47           | ...                       | 13         | .56           | ...                                | ...                          | ...            | 1             | 134   |
|                               | 233486                           | 789               | 3.38          | 198         | .85           | 13                | .05           | 11                  | 24                    | 96          | .41           | 6                         | 115        | .75           | 1                                  | 2                            | 1              | 140           | 1456  |
| TOT. BORO'S & URBAN DISTRICTS | 1062464                          | 4871              | 4.58          | 2519        | 2.37          | 37                | .03           | 49                  | 125                   | 469         | .44           | 63                        | 1053       | .99           | 10                                 | 13                           | 1              | 2957          | 12167 |
| TOTAL RURAL DISTRICTS         | 233486                           | 789               | 3.38          | 198         | .85           | 13                | .05           | 11                  | 24                    | 96          | .41           | 6                         | 115        | .75           | 1                                  | 2                            | 1              | 140           | 1456  |
| TOTAL FOR ADMIN. COUNTY       | 1295950                          | 5660              | 4.37          | 2717        | 2.10          | 50                | .04           | 60                  | 149                   | 565         | .44           | 69                        | 1228       | .95           | 11                                 | 15                           | 2              | 3097          | 13623 |

\* 1st January to 31st March.  
 † 1st April to 31st December.



| ORIGINAL ARTICLES |     | DEPARTMENTS |      | BOOK REVIEWS |      |
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