

[Report 1928] / Medical Officer of Health, Middlesbrough County Borough.

Contributors

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County Borough



of Middlesbrough.

HEALTH DEPARTMENT.

Annual Report

AND

Vital and Mortality Statistics

For the Year 1928.

Middlesbrough :
JORDISON & Co., LTD., PRINTERS, LITHOGRAPHERS, &c.

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COUNTY BOROUGH OF MIDDLESBROUGH.

Members of the Sanitary Committee, 1928-9.

Chairman—ALDERMAN A. MATTISON.

HIS WORSHIP THE MAYOR (COUNCILLOR G. ALEXANDER.)

ALDERMEN W. J. BRUCE, O.B.E., J.P., G. A. CAREY, J. FORBES, J.P.,
J. RODDY, A. WEATHERHEAD, M.B.E., J.P.

COUNCILLORS A. ELSTROP, MRS. H. GUTHRIE, H. D. LEVICK, M.B., J.P.,
MRS. H. M. LEVICK, M.D., S. LEVY, A. MARSHALL, T. MEEHAN, J. NUGENT,
J. G. PALLISTER, W. E. PRICE, B. RAMSEY, E. SPENCE, J.P., P. SULLIVAN,
A. TODD, J. G. WADDINGTON, J. WRIGHT.

Members of the Sanatorium Committee, 1928-9.

Chairman—COUNCILLOR J. G. PALLISTER.

HIS WORSHIP THE MAYOR (COUNCILLOR G. ALEXANDER.)

ALDERMEN W. J. BRUCE, O.B.E., J.P., J. FORBES, J.P., A. MATTISON,
T. G. POOLE, J.P., S. A. SADLER, J.P.

COUNCILLORS F. CAREY, A. COOPER, W. ECKERT, H. D. LEVICK, M.B., J.P.,
MRS. H. M. LEVICK, M.D., A. MARSHALL, W. J. O'NEILL, P. SULLIVAN,
J. WELCH.

Members of the Maternity and Child Welfare Committee, 1928-9.

Chairman—COUNCILLOR MRS. H. GUTHRIE.

HIS WORSHIP THE MAYOR (COUNCILLOR G. ALEXANDER.)

MRS. M. E. HEWITSON, MISS I. M. EACOTT, MRS. KEDWARD, MRS. BRUCE,
MRS. STANLEY A. SADLER, MRS. THOMAS, MRS. TRURAN, MRS. TURFORD,
DR. J. E. HOWELL.

ALDERMEN A. CAREY, J. FORBES, J.P., A. MATTISON, J. RODDY.

COUNCILLORS J. WESLEY BROWN, F. CAREY, MRS. MARION COATES-HANSEN,
J. HAMILL, J.P., H. D. LEVICK, M.B., J.P., MRS. H. M. LEVICK, M.D.,
J. NUGENT, B. RAMSEY, P. SULLIVAN, J. TAYLOR, J. WELCH.

STAFF.

Medical Officer of Health and Superintendent of Hospitals

‡CHAS. V. DINGLE, M.D., B.S., B.H.Y., D.P.H.

also acts as School Medical Officer and Medical Officer to the River Tees Port Sanitary Authority.

Assistant Medical Officer of Health :

W. S. WALTON, M.B., B.S., B.H.Y., D.P.H. (appointed Feb., 1928).

also Assistant Port Medical Officer to the River Tees Port Sanitary Authority.

Tuberculosis Officer :

‡F. J. HENRY, M.C., M.B., F.R.C.S., D.P.H. (Barrister-at-Law).

Maternity and Child Welfare Medical Officer :

‡MRS. GRACE H. GIFFEN DUNDAS, F.R.C.S., D.P.H.

Venereal Diseases Medical Officer (Part Time) :

‡ARTHUR BRYANS, L.R.C.P. & S. (Ed.), L.R.F.P.S. (GLAS.).

Chief Sanitary Inspector :

*‡‡THOMAS P. DIXON, MEM. S.I.A., MEM. R.S.I.

Assistant Sanitary Inspectors :

†A. W. LUCAS (Factories, Workshops, &c.)	*†H. WHITFIELD (Assist. Food Insp.)
*†S. E. ELLIS (Food and Drugs).	*†J. N. MARTIN.
†M. GUTHRIE.	*†R. LEGGATT.
†H. WATSON.	*†A. C. WALKER.

Health Visitors :

‡‡MISS L. BELL (Supervisor).	‡§‡MISS M. NESBITT.
‡‡MISS M. A. BLAKE.	‡§‡MISS R. SPITTEL.
‡‡§‡MISS M. VEITCH.	‡§‡MISS A. G. TODD.

Nurses :

‡MISS M. OWEN (Tuberculosis).	‡MISS P. STOCKTON (Tuberculosis).
¶‡MISS D. E. HALL (Tuberculosis).	‡MISS G. VAUGHAN (Measles).
¶‡MISS I. BONE (Appointed August, 1928—Measles).	

Matrons :

MRS. B. GARDNER : Fever, Smallpox and Tuberculosis Hospitals.
§‡‡MISS ANNIE DAVIES : Municipal Maternity Home and Children's Hospital.
(Resigned February, 1928).
§‡MISS D. BEARD (appointed March, 1928).

Clerks :

†JOHN W. RAWDON.	R. JAMES.
P. E. TAGGART.	J. E. DODSWORTH.
T. E. PETERSON	‡MISS H. DANBY.
‡MISS E. LAKIN	‡MRS. C. WALLER.
‡MISS E. ANDREWS.	

Foremen Scavengers :

GEORGE STEVENSON (resigned Nov., 1928). THOMAS WILSON.

*Meat Inspector's Certificate of R.S.I.

†Sanitary Inspector's Certificate of R.S.I.

‡Salaries rank for Exchequer Grant.

§Certificate of Central Midwives' Board.

¶Health Visitor's Diploma, Board of Education.

¶State Registered Nurse.

THE HEALTH DEPARTMENT,
MUNICIPAL BUILDINGS,
MIDDLESBROUGH,
JUNE, 1929.

TO THE CHAIRMAN (ALDERMAN A. MATTISON) AND
MEMBERS OF THE SANITARY COMMITTEE.

LADIES AND GENTLEMEN,

I have the honour to present for your consideration my Thirtieth Annual Report on the Health of the County Borough of Middlesbrough.

Compared with the previous year there is an increase in the Death Rate by one per 1,000 of the population, although the actual deaths registered were 28 fewer than in the previous year. The increase in the rate is due to the estimated population for the year 1928 having been reduced by the Registrar General from 133,600 in 1927 to 131,700 for 1928; this latter figure is only 630 above the Census figure of 1921.

The birth rate which has been declining during the past seven years shows a considerable increase on that of the previous year.

INFANTILE MORTALITY.—There is no unfavourable change in this year's rate which is only one per 1,000 higher than the rate for the previous year. It is very satisfactory to note that the high Infantile Mortality rates which have been prevalent in various wards, *e.g.*, Cleveland, Cannon, Newport, Ormesby, St. Hilda's and Vulcan, are at last showing signs of improvement and although still high, they are now much below the average rates in these wards for the past ten years.

INFECTIOUS DISEASES.—With the exception of Measles, Whooping Cough and Chicken-pox, there have been remarkably few notifications and the death rates from the chief notifiable diseases compare very favourably with those of the County Boroughs and Great Towns of England and Wales.

SMALLPOX.—There have been no cases of this disease notified since the beginning of September last.

HOUSING.—Under Housing Schemes, 111 houses have been erected in an area which was just outside the Borough boundary. This area is being taken into the County Borough.

The total houses erected during 1928 was 297, which approximates to the pre-war yearly increase. Twelve flats, in three blocks, each flat consisting of one living room, two bedrooms, scullery and bathroom, are being erected on the area of the Dacre Street demolition scheme. These flats are close to the works and help to meet the demand of the population of that district for house accommodation near their work.

During the year 1928, there was no outstanding feature affecting the health of the Borough which continues steadily to improve.

I have the honour to be,
Your obedient servant,

Charles V. Dringle

Medical Officer of Health.

ANNUAL REPORT

of the Medical Officer of Health for 1928.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

Area (in acres) : 4,323 (including 173 acres of tidal land).

Population : (Census 1921, and estimated 1928) :—

Census, 1921	..	..	..	131,070
Estimated, 1928	..	..	..	131,700

Number of Inhabited Houses (1921) : 25,541.

Number of Families or Separate Occupiers (1921) : 27,891.

Rateable Value : £656,132 0s. 0d.

Sum represented by a penny rate : £2,285 0s. 0d.

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

		Male.	Female.	Total.	Birthrate :
BIRTHS :	Legitimate ..	1,587	1,475	3,062	26.12 per 1,000 per annum.
	Illegitimate ..	77	80	157	

DEATHS : Total 1,757. Deathrate : 14.26 per 1,000 per annum.

Number of Women dying in, or in consequence of, Childbirth :—

From Sepsis	..	..	..	..	5
From other causes	..	..	..	..	12

Deaths of Infants under one year of age per 1,000 births :—

	Legitimate.	Illegitimate.	Total.	
	82	134	88	
Deaths from Measles (all ages)	..	..	..	33
„ Whooping Cough (all ages)	..	..	..	32
„ Diarrhoea (under 2 years)	..	..	..	51

VITAL STATISTICS.

Population.—At the Census of 1921, the population enumerated was 131,070, consisting of 66,166 males and 64,904 females. The Registrar General has estimated the population of the County Borough of Middlesbrough for 1928 at 131,700.

Births.—The number of births registered during 1928 was 3,252, the nett births being 3,219, males 1,664, females 1,555, giving a birth rate of 26.12 per 1,000 of the estimated population.

The notified births totalled 3,147, being 105 less than the registered births.

Illegitimate births numbered 157, being an increase of 12 on the previous year.

Deaths.—The number of deaths registered in the Borough during 1928 was 1,905, giving a crude death rate of 15.45 per 1,000 of the estimated population. The nett deaths of persons belonging to the district was 1,757, giving a death rate of 14.26 per 1,000. The rate for England and Wales during 1928 was 11.7 per 1,000.

The death rates per 1,000 estimated population in the various Wards of the town during 1928 were :—

Ayresome Ward	..	..	..	10.16
Acklam	„	..	..	9.91
Cannon	„	..	..	16.26
Cleveland	„	..	..	12.84
Exchange	„	..	..	10.50
Grove Hill	„	..	..	12.21
Linthorpe	„	..	..	13.14
Newport	„	..	..	17.67
Ormesby	„	..	..	9.99
St. Hilda's	„	..	..	21.16
Vulcan	„	..	..	22.10

INFANTILE MORTALITY.

The nett number of deaths under one year of age was 286, equal to an infantile mortality rate of 88 per 1,000 births.

**Infantile Mortality Rates in the various Wards
per 1,000 Births.**

Ward.	1927	1928
Ayresome	56	112
Acklam	38	36
Cannon	107	104
Cleveland	82	87
Exchange	61	85
Grove Hill	64	43
Linthorpe	77	81
Newport	129	118
Ormesby	95	81
St. Hilda's	128	115
Vulcan	88	102
Whole Borough	87	88
England and Wales	69	65

For further particulars relating to Infant Mortality see the Report of the Maternity and Child Welfare Medical Officer, pages 60 to 66.

HOSPITALS PROVIDED BY THE LOCAL AUTHORITY.

- A.** (1) **FEVER : West Lane.**—There are 200 beds for the usual notifiable diseases.
- (2) **SMALLPOX : Hemlington.**—There are 100 beds.
- B.** (1) **TUBERCULOSIS : West Lane.**—30 beds and 3 huts.
Broomlands.—Six beds are retained for surgical tubercular cases.
- (2) **MATERNITY : Municipal Maternity Hospital, Park Road North.** There are 19 beds for Maternity cases.
- (3) **CHILDREN'S HOSPITAL : Municipal Children's Hospital, Park Road North.** There are 15 beds for infants under 5 years of age.
- (4) **OTHER : Children's Cripples Home.** The Davison Holiday Home at Danby, supported by voluntary contributions, to which crippled children are sent. About 100 are received for three weeks each in the summer months.

INSTITUTIONAL PROVISION FOR UNMARRIED MOTHERS, &c.

There is provision for these at the **Holgate (Guardians) Hospital**, and at the **Holy Cross Refuge**. The latter is a Church of England Institution and receives a grant from the Local Authority. It provides for unmarried mothers.

HOMELESS CHILDREN : Guardians Children's Homes, Nazareth House (R. C.), 206, Holy Rood Orphanage (C. E.) 16, and a branch of Dr. Barnardo's Homes (Undenom) 24.

CLEANSING STATION : 52, Bridge Street West. This is a small Cleansing Station, fitted with a steam disinfecter and baths, for dealing with verminous persons.

Ambulance Facilities:—

- (1) For infectious diseases there are three motor ambulances.
- (2) For non-infectious cases and accidents there are two motor ambulances provided by the Town Council.

CLINICS AND TREATMENT CENTRES.

(a) **Maternity and Child Welfare Centres** (Consultation and Treatment) :—

NAME OF CENTRE.	HELD AT	ORDINARY CHILD WELFARE MEETINGS.
(1) East Centre.	5, The Newlands.	Mondays .. 2 p.m.
(2) Cannon Centre.	Settlement Hall, Church Street.	Mondays .. 10 a.m. Tuesdays .. 2 p.m.
(3) American Red Cross Centre.	Market Place.	Wednesdays 2 p.m.
(4) Settlement Centre.	Settlement Hall Church Street.	Thursdays .. 2 p.m.
(5) North Ormesby Centre.	Mount St. Mary, North Ormesby.	Fridays .. 2 p.m.
(6) Grove Hill Centre.	The Institute, Grove Hill.	Tuesdays .. 10 a.m.

Each of the above Centres has a special Ante-Natal Clinic once each month. An Ante-Natal Clinic is also held weekly at the Maternity Hospital and another at the Poor Law Infirmary.

At all the Centres "Toddlers" from 1 to 5 years are received at each session and are examined and supervised.

These Centres have voluntary workers working under the direction of the Medical Officer for Maternity and Child Welfare and the Health Visitors.

(See *Report on Maternity and Child Welfare*—pages 60 to 66).

(b) **Day Nurseries** :—

The Middlesbrough Settlement Committee opened an experimental Day Nursery for a few months during last year. It is hoped that this school will be re-opened on a more permanent basis in the present year.

(c) **School Clinic** :—

This is held at 56, Grange Road, daily from 9 a.m. to 12 noon for consultations and treatment of minor ailments, and every Saturday morning for refractions.

(d) **Dental Clinic** :—

This also is held at 56, Grange Road, daily, and is attended by a whole-time dentist.

(e) Tuberculosis Dispensary :—

35, Grange Road. Open daily from 9 a.m. to 5 p.m. and attended by the Tuberculosis Medical Officer, who has a staff of three nurses and two clerks.

(See *Tuberculosis Medical Officer's Report*—pages 50 to 53).

(f) Venereal Diseases Clinic :—

7, Grange Road. Open on Mondays and Fridays at 8-30 a.m. and 5-30 p.m. for Males, and on Wednesdays at 5-30 p.m. for Females ; and also every week-day morning and every week-day night (except Wednesdays and Saturdays) at 8-30 and 5-30 for irrigation of Males. Treatment is carried out by a part-time Medical Officer, one male and one female attendant and two clerks.

(See the *Venereal Diseases Officer's Report*—pages 54 to 59).

(g) Orthopœdic Clinic :—

A Clinic for children of school age and also for Infants up to five years of age is held once monthly. A Surgeon from Kirby Moorside Orthopœdic Hospital attends this Clinic and selects suitable cases for treatment. This Clinic is provided jointly by the Education and Maternity and Child Welfare Committees.

(h) Artificial Light Clinic :—

A Clinic is held weekly at the Maternity Hospital for Infants and young children (see report of Maternity and Child Welfare Officer). This Clinic is provided by the Maternity and Child Welfare Committee and has also been used by the Education Committee.

(i) Summer Camp (Marske) :—

Held each summer. Open for four months. 700 school children treated annually. This is provided by the Education Committee.

PROFESSIONAL NURSING IN THE HOME.

(a) General :—

This is provided by the Middlesbrough and District Nursing Association. The Association is supported by voluntary contributions, but receives grants from the Local Authority for various services, *e.g.*, home nursing of Tuberculosis, Puerperal Fever, Pneumonia, Ophthalmia Neonatorum, Expectant and Nursing Mothers, and Infants under 5 years of age, if required. These cases are referred to the Association by the Departmental Medical Officers of the Local Authority.

(b) Infectious Diseases :—

Two whole-time nurses are employed by the Local Authority to visit, and when necessary, nurse cases of Measles and Chickenpox. Temporary nurses are engaged as required.

(c) Midwives :—

There are 44 Midwives practising in the Borough, 40 of whom are trained and 4 are untrained.

LABORATORY WORK.

The Bacteriological and Pathological work is sent to the Clinical Research Association, London.

The Chemical Analyses are done by Messrs. Scholes and Jackson, of Middlesbrough.

BACTERIOLOGICAL EXAMINATIONS—1928.

Specimen.	Positive.	Negative.	Total.
Swabs (Diphtheria) ..	49	128	177
Spinal Fluid (Cerebrospinal.) ..	..	2	2
Blood (Enteric Fever) ..	5	13	18
Lung and Spleen (Tuberculosis) 2	..	..	2
Blood (Malaria) .. ..	..	1	1
Faeces (Dysentery) .. ..	..	1	1
Rats (B. Pestis) .. ..	..	8	8
Water .. ..	..	..	2
Milk (B. Coli.)	40	103	143
Milk (B. T.B.) .. ..	..	36	36

SERUMS, VACCINES, ETC., ISSUED.

Salvarsan Substitutes issued to :—

Treatment Centre and Hospitals	1,106
General Practitioners	41
Anti-Diphtheritic Serum at 2,000 units	34

OUTFITS SUPPLIED.

Diphtheria Swabs	..	..	..	..	..	159
Widal (for Enteric)	..	..	..	..	..	13
Wassermann (For V. D.)	..	..	..	..	..	109

ADOPTIVE AND LOCAL ACTS AND BYELAWS.

There have been no additions or alterations during the past year.

SANITARY CIRCUMSTANCES OF THE AREA.

Water :—

The supply is that of the Tees Valley Water Board. During the year samples have been submitted for both Chemical and Bacteriological examination and the water has been found satisfactory, both in quality and quantity.

Chemical Analysis					Grains per gallon.
Total Solids	..	..	..	..	7.7
Combined Chlorine	..	..	..	..	0.7
Nitrous Nitrogen	..	..	..	..	Nil
Am. Nitrogen	..	..	..	..	0.0007
Alb. Nitrogen	..	..	..	..	0.0059
Lead	..	..	..	..	Nil
Temporary Hardness	..	..	..	..	5.3
Permanent Hardness	..	..	..	..	0.9
Total Hardness	..	..	..	..	6.2

Bacteriological Analyses :—

Average Number of Organisms					
at 20.22C for 3 days					
B. Coli.	..	..	..	..	194 per c.c.
Streptococci	..	..	..	..	100 c.c.
B. Enteriditis Sporogenes	..	..	..	..	not found in
					30 c.c.
					100 c.c.

Drainage and Sewers :—

The length of new Sewers laid during the year was 500 lineal yards, ranging from 9 to 18 inches diameter.

Report of the Chief Sanitary Inspector for the Year 1928.

SANITARY INSPECTION OF THE AREA.

DESCRIPTION OF WORK CARRIED OUT.

Number of Inspections made	9,503
Number of Re-inspections made	16,511
Number of Food inspections	10,883
Number of Notices and Letters served	7,481

Drainage :—

Smoke Test applied to new drains	492
Drains re-constructed	158
Cleansed and repaired	416
Sink waste pipes trapped or renewed	101
Defective yard gullies	29
Grates provided for gully traps	33
Drains cleared with Cooper's Vacuum Pump (free of cost to owners)	2,800
Defective gully covers	35

Water Closets :—

Provided with a sufficient water supply	89
Basins renewed	17
Cisterns repaired or renewed	259
Foul water closet drains	146
Defective closet doors	220
Dilapidated closet seats	29
Defective closet roofs	224
Defective joint between flushpipe and watercloset basin	8

Houses :—

Cleansed and limewashed	180
Roofs, &c., repaired	312
Water spouts fixed or repaired	1,094
New sinks fixed	69
Accumulations of refuse or manure removed	2
Nuisances arising from the keeping of Animals, Poultry, &c. ..	2
Pavements of yards repaired	192
New floors laid or repaired	297
Provided with a sufficient supply of water	32
Dilapidated ashpans	21
Dilapidated dustbins	2,541
Defective chimneys	45
Defective ceilings	124
Defective sashcords and windows	253
Defective fireplaces	49
Defective fireranges	116
Defective walls	516
Defective ovens	32
Dilapidated setpots	91
Dilapidated setpot firebars	40
Defective handrails	25
Dirty premises	4
Defective flues	35
Defective yard doors	142
Dilapidated back passage surfaces	170
Dilapidated panhole doors	2
Miscellaneous works not classified	791
Number of Housing Cards compiled since January, 1928	170

The above defects were satisfactorily remedied during the year.

The attention of the Borough Engineer has been called to the following defects :—

Apparently dangerous structures	78
Miscellaneous	21

SANITARY CONVENIENCES.

No alteration has taken place during the year. There are only 89 privy closets in existence, these being in the Nile Street Area.

INFECTIOUS DISEASES.

During the year 909 houses have been inspected incurring 3,275 re-inspections, owing to cases of Infectious Disease (including Tuberculosis), and reports made to the Medical Officer of Health.

The number of inhabited rooms disinfected owing to cases of Infectious Disease and Vermin was 2,335.

CLEANSING OF VERMINOUS PERSONS.

During the year a regular inspection has been made of the Common Lodging Houses and Houses-let-in-Lodgings within the Borough. The Registered Keepers have readily co-operated with the Department and notified the Inspector on his visits as to any Lodgers who are in a dirty or verminous condition. Nine men found to be in a verminous condition have been sent to Holgate (Guardians) Institution during the year for cleansing.

Nine school children have been dealt with at the Cleansing Station, and their homes and bedding, together with the other inmates, have been thoroughly disinfected.

REFUSE COLLECTION AND DISPOSAL.

A regular weekly collection has been made from the 28,721 houses and shops within the Borough. The collection is made by 14 horse drawn vehicles and 9 motor vehicles (consisting of 6 Ford Tonners and 3 S.D. Freighters).

During the year 27,539 loads of refuse were collected ; 14,143 loads representing 16,972 tons by horse-drawn vehicles, and 12,855 loads representing 18,212 tons by motor vehicles. The motors are worked in those outlying districts where the time taken in disposing of the load is greater than the time taken by the loaders in loading the vehicle following up.

35,184 tons represent 263.55 tons per 1,000 population per annum or 14.4 cwts. per 1,000 population per day. This figure cannot be considered high, as from the recent return issued by the Ministry of Health on Public Cleansing the average for the various towns and cities with a total population of 12 $\frac{3}{4}$ millions is 16.5 cwts.

Considerable economy will be effected in many domestic budgets if those responsible will ensure that ashes and cinders are completely burned before being placed in the receptacle.

72,033 bags of waste paper and light refuse matter were collected free of charge from the shops within the Borough. This is disposed of chiefly at the Swimming Baths and undoubtedly it is a cheap fuel whereby the whole of the steam raising plant is fed.

Household refuse was disposed of by barging to sea and tips. Two hoppers were employed for the disposal of refuse at sea, and 79 trips were made, 20,033 tons of refuse being disposed of. 14,186 tons of refuse were disposed of at the tips and 965 tons were sold to Farmers as manure.

The costs of Collection and Disposal from the figures in the Estimates supplied by the Borough Accountant are as follows :—

Cost of Collection	£14,473
Cost of Disposal	£4,549

The costs for Collection and Disposal are fairly stationary considering that 297 houses which have been built and inhabited during the year are situated in districts which are the farthestmost points in respect to Disposal. The majority are built on the Garden City principle with no back streets, and consequently considerably more time is involved in Collection. From the Report on Public Cleansing issued by the Ministry of Health our costs compare most favourably with those of other towns and cities (with a total population as stated earlier,) the average cost per 1,000 houses for Collection and Disposal being £828 against Middlesbrough's £680. I feel sure that you will appreciate that every effort is made to combine efficiency with economy.

COLLECTION AND DISPOSAL OF ORGANIC REFUSE.

The Organic Plant has been in full work during the year and again I am pleased to report that the Plant has been successful and a profit of approximately £400 was realised on the year's working.

The undermentioned Organic Waste, &c., was dealt with :—

Diseased Meat	5,588½ stones
Organic Waste from Slaughterhouses	13,386 „
Fish Offal	29,336½ „
Dead Dogs and Cats	1,357½ „
Fish Scrappings	301½ „

The following manufactured products were sold :—

					£	s.	d.
Fish Meal	..	..	43 tons	..	..	685	1 1
Meat Meal	..	..	9 $\frac{3}{4}$ „	..	..	137	11 0
Blood Meal	..	..	1 $\frac{3}{4}$ „	..	..	27	14 0
Fertiliser	..	..	28 $\frac{1}{2}$ „	..	..	197	18 0
Tallow—White	..	..	9 „	..	..	272	5 0
„ Green	..	..	6 $\frac{1}{4}$ „	..	..	125	11 1
Total Income					..	£1,446	0 2

RATS AND MICE (DESTRUCTION) ACT, 1919.

During the year 37 complaints have been received of Rats infesting houses, shops or warehouses within the Borough. 129 visits were paid and every advice and assistance given, and although only 48 Rats were found dead, it is impossible to estimate the total number of Rats actually destroyed as a large number must have died in their holes.

The 3 Official Rat Clubs have continued their operations against these pests with good results ; 249 places have been visited and 2,616 Rats have been killed.

SANITARY CONDITIONS OF THEATRES AND MUSIC HALLS.

Inspections have been made of the Theatres, Music Halls and other places of Public Entertainment as to the sanitary conditions in accordance with the requirements of the Ministry of Health (Circular No. 120), and all were found to be satisfactory.

SHOPS ACT.

During the year the shops within the Borough have been kept under close observation, 1,322 day visits and 309 night visits having been paid.

The Shops (Hours of Closing) Act, 1928, which came into operation on the 3rd August has extended Powers to the Local Authority, whereas formerly only the Home Office could grant any alterations or deviation from the hours laid down in the Shops (Early Closing) Act, 1921. The Local Authority has now Power to sanction a petition in respect to the suspension of the general hour of closing for not more than seven days in the aggregate of any one year. This consideration was long overdue.

Under Section 3 of the Act as respects the trade or business of selling tobacco and smokers' requisites, a local authority may, in their area or in any part thereof, by order, substitute for the General Closing Hours fixed by this Act, later hours, not being later than ten o'clock in the evening on the late day or half-past nine o'clock in the evening on any other day, if they are satisfied that such an Order is desired by the Occupiers of at least two-thirds in number of the shops to be affected by the Order. The Local Tobacconists readily saw the wisdom of making application, which was granted. In my opinion this is a step in the right direction, as a large number of shops combine the business of Tobacconist with that of Confectionery; and whilst one section of the trade (Confectionery) was allowed to keep open, the other section (Tobacco, &c.) must close. These shops naturally had to be kept under close observation, but since the extension the whole of the shop must close at one definite hour and supervision is much easily carried out.

Unfortunately the new Act does not control Sunday Trading, and I feel that Sunday Trading is on the increase within the Borough, which in my opinion is definitely a retrograde step.

HOUSES-LET-IN-LODGINGS.

Number of Houses	..	..	..	..	..	110
Number of Inspections	..	..	..	..	..	245
Number of Applications to Register	..	..	..	..	..	22
Number of Notices and Letters <i>re</i> repairs, cleanliness, etc.	..	..	..	..	..	67

Circular letters respecting the annual cleansing are forwarded each year to the responsible Occupiers of all houses.

COMMON LODGING HOUSES.

Number of Houses	..	..	..	..	..	13
Number of Keepers	..	..	..	..	..	10
Number of Inspections	..	..	..	..	..	105
Number of Lodgers accommodated nightly	..	..	..	..	..	689
Number closed or discontinued	..	..	..	..	..	Nil
Number of Notices and Letters <i>re</i> repairs, cleanliness, etc.	..	..	..	..	..	13

Circular letters respecting the necessary cleansing are forwarded bi-annually to all the responsible Keepers.

SLAUGHTERHOUSES.

	Registered.					Licensed.
December, 1920	39	3
January, 1928	34	2
December, 1928	29	2
Public Slaughterhouse	1
Number of Inspections	8,907
Number of Notices to limewash	39
Number of Notices to provide refuse receptacles	4
Number of Notifications of change of occupier	Nil
Letters <i>re</i> cleanliness, repairs, etc.	11

It will be observed that 5 registered slaughterhouses have been automatically struck off the Register during the year under section 126 of the Town Improvement Clauses Act, 1847, as applied by section 169 of the Public Health Act, 1875. This is due to the fact that slaughtering has not been carried on therein for several years.

OFFENSIVE TRADE.

Number on Register .. .. .	..	..	..	..	..	..	156
Fried Fish Shops .. .. .	..	..	..	..	..	..	133
Tripe Boilers .. .. .	..	..	..	..	..	..	10
Tallow Melters .. .. .	..	..	..	..	..	..	2
Tallow Chandlers .. .. .	..	..	..	..	..	..	1
Gut Scrapers .. .. .	..	..	..	..	..	..	3
Fat Renderers .. .. .	..	..	..	..	..	..	2
Bone Steamers .. .. .	..	..	..	..	..	..	1
Glue Makers .. .. .	..	..	..	..	..	..	1
Fellmongers .. .. .	..	..	..	..	..	..	1
Lubricant Makers .. .. .	..	..	..	..	..	..	2
Number of inspections .. .. .	..	..	..	..	..	..	234
Number of Notices to Limewash .. .. .	..	..	..	..	..	..	47
Number of Fried Fish Shops opened .. .. .	..	..	..	..	..	..	1
Letters of warning for minor contraventions of Bye-laws .. .. .	..	..	..	..	..	..	14

Fried Fish Shops :—

In July of 1922 these businesses came within the Provisions of Section 112 of the Public Health Act, 1875, as amended by Section 51 of the Amendment Act, 1907, as

an Offensive Trade. The whole of the Fried Fish Shops within the Borough have now been brought up to a good standard ; new ranges have been provided which are more satisfactory from an effluvia nuisance standpoint, and the whole generally are carried on in a most satisfactory manner.

The other Trades on the Register have been conducted satisfactorily and in no instance where any alterations or improvements have been suggested have I had anything but a ready response to carry out the same.

ICE CREAM DEALERS.

The Middlesbrough Corporation Act of 1910, Sections 38 and 39, give the Corporation power to control the manufacture of Ice Cream.

During the year all premises where Ice Cream is manufactured, stored or sold have been regularly visited and found satisfactory.

Number manufacturing Ice Cream	..	..	..	67
Number selling Ice Cream..	..	..	..	111
Number discontinued during the year	..	..	..	1
Number registered during the year	..	..	..	1
Number of inspections made	..	..	..	135
Number of letters sent <i>re</i> minor contraventions, alterations to premises, &c.	..	..	..	10

COW SHEDS.

Number of Cowsheds	..	..	..	..	1
Number of Registered Cowkeepers	..	..	..	..	1
Number of Cows kept	..	..	..	..	12
Number of Inspections made	..	..	..	..	4
Number of Notices to Limewash	..	..	..	..	2
Number discontinued during Year	..	..	..	..	3

During the Year 3 Cowsheds have been removed from the Register. This is accounted for by the absorption of land in connection with the said Farms for allotments and general main road improvements.

The requirements of the Milk and Dairies Order have been carried out in respect to the one Farm existant within the Borough. The buildings, including cow byres and dairy, have been kept in a satisfactory condition.

DAIRIES AND MILKSHOPS.

Number on the Register	138
Number discontinued since January, 1928	6
Number registered since January, 1928	9
Number of Transfers of Licences	10
Number of Inspections	275
Number of Notices requesting Purveyors to Register ..	3

Letters of warning for minor contraventions of the Bye-laws were sent to several Milk Purveyors, but on the whole the conduct was generally satisfactory. Legal Proceedings were instituted against 2 Registered Dairymen during the Year (see Magisterial Proceedings, Nos. 11 and 12).

ADMINISTRATION OF THE FACTORY AND WORKSHOPS ACT, 1901.

There are 437 Workshops on the Register, including :—

Workshop Bakehouses	53	Tinsmiths	5
Factory Bakehouses	25	Watch Repairing	9
Boot and Shoe Repairing	62	Cabinet Making	11
Dressmaking	32	Laundries	9
Millinery	12	Cycle Making and Repairing	22
Tailoring	46	Workplaces	22
Joinery	46	Blacksmiths	10
Plumbing	11	Miscellaneous	59
Saddlery	3		

On the whole, the Workshops, Retail Bakehouses, etc., were found to be in a satisfactory condition, and no Legal Proceedings were instituted.

Full details of the Workshops and Inspections have been placed on record in accordance with the Act.

The following is the summary of the work carried out during the Year :—

Notices received from His Majesty's Inspector of Factories :

Re-occupation of Workshops	11
Unsuitable Sanitary Accommodation	6
Dirty Workshops	1

Factories :

Number Inspected	138
Number of Inspections	244

Workshops and Domestic Workshops :

Number Inspected	437
Number of Inspections	1,918

Notices Served Under the Public Health Acts :

To Cleanse and Limewash	15
To provide means of Ventilation (Sec. VII.)	2
Re Wet Floors (Sec. VIII.)	Nil
Sanitary Defects	27
To Provide Refuse Receptacle	4
Overcrowding	Nil

Bakehouses, 78 in Number, Including 25 Factory Bakehouses :

Number Inspected	75
Number of Inspections	417
Notices Served to Limewash	2

Factory Bakehouses :

Number of Inspections	120
Unsuitable Premises	Nil

Sanitary Conveniences in Workshops :

Closets, Insufficient, Unsuitable or Defective	8
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Home Work (Section 107 to 115) :

35 Lists of Out-Workers (or Home Workers) were received in the first half of the year, and 30 for the second half.

Number of Lists of Outworkers received	65
Number of Employers	35
Number of Outworkers Premises Inspected	118

Workplaces (Restaurant Kitchen, etc.) :

Number on Register	41
Number Inspected	41
Number of Inspections	139

SMOKE ABATEMENT.

I am pleased to report that so far as the smoke nuisance from industrial chimneys is concerned there is little cause for complaint. During the year improvements were carried out to the furnace chimney at the Corporation Gas Works with very satisfactory results.

In Middlesbrough the household chimney is the chief cause of trouble, not only in regard to its numbers but owing to the fact that the tar oils are not consumed in a manner similar to the average steam raising furnace. Rapid strides are being made with the carbonising of coal which sooner or later will result in a smokeless fuel being placed on the Market at an economical figure. In this direction, and this direction only, must we look forward to better results in respect to the chimneys of dwelling houses, as the old British instinct of a good blaze in the firegrate still lingers.

HOUSING.

Number of New Houses Erected during the year, 1928 :

(a) Total (including numbers given separately under b)	..	297
(b) With State Assistance under the Housing Acts	.. ..	260
1. By the Local Authority	.. .. .	111
2. By other Bodies or Persons	.. .. .	149

1. Unfit Dwelling Houses :

(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	.. .. .	9,503
(2) Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910, or Housing (Consolidated) Regulations, 1925	.. .. .	1,157
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation (Scheduled Areas)	.. .. .	294
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	.. .. .	7,695

2. Remedy of Defects without service of Formal Notices :

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers	..	7,695
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3. Action under Statutory Powers :

A.—Proceedings under Section 3 of the Housing Act, 1925—

(1) Number of dwelling houses in respect to which Notices were served requiring repairs	Nil
(2) Number of dwelling houses which were rendered fit after service of Formal Notices	Nil
(a) By Owners	Nil
(b) By Local Authority in default of Owners	Nil
(3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declaration by Owners of intention to close	Nil

B.—Proceedings under Public Health Acts —

(1) Number of dwelling houses in respect of which Notices were served requiring defects to be remedied	1,808
(2) Number of dwelling houses in which defects were remedied after service of Formal Notices	
(a) By Owners	1,808
(b) By Local Authority in default of Owners	Nil

C.—Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925—

(1) Number of representations made with a view to the making of Closing Orders	Nil
(2) Number of dwelling houses in respect of which Closing Orders were made	Nil
(3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit	Nil
(4) Number of dwelling houses demolished in pursuance of Demolition Orders	Nil

INSPECTION AND SUPERVISION OF FOOD.

MILK SUPPLY.

During the year 143 samples of Milk were procured and submitted for Bacteriological Examination, and a high standard of cleanliness was maintained. 26 or 18.1% were found to contain Coliform Bacilli upon first test ; and 14 or 9.7% were found to contain Coliform Bacilli upon second or subsequent tests.

36 samples were examined for Tubercle Bacilli by the Inoculation Test, and all were returned " Negative."

Letters of warning, together with suggestions on " How to produce Clean Milk " are sent to all Farmers whose Milk is dirty. Letters notifying Farmers who are producing Clean Milk are also sent.

Of the 26 samples that contained Coliform Bacilli on first examination, 13 contained Coliform Bacilli in only 1/100th of a c.c., 10 in 1/1000th of a c.c., and 3 in 1/10000th of a c.c.

9 samples were returned as containing one to five million Bacteria per 1 c.c. 6 of these were definitely B. Coli., and the remaining 3 were no doubt attributed to the B. Lacticus. In each case these samples were procured during the harvest time when the responsible hands were engaged in the fields and inexperienced hands were engaged in the cow byres, they being considered good enough to carry on the work of Milk production. Serious letters of warning were sent to the Farmers concerned and an appreciably better result was obtained when the next samples were procured.

It is an added pleasure to find the hearty co-operation that is shewn by all Farmers to produce a Clean Milk, and I feel that no good purpose would be gained by taking proceedings when such heartfelt co-operation is given by those responsible.

A sample of dirty water from a churn that was supposed to have been effectively cleansed by the Dairyman before returning to the Farmer was also submitted for examination, and it was found to have a very high Bacteria Count, Coliform Bacilli being present in 1/10000th of a c.c. Proceedings were instituted against the Dairy man concerned (see Magisterial Proceedings No. 12).

**REPORT OF THE ADMINISTRATION IN CONNECTION WITH THE PUBLIC
HEALTH (MILK AND CREAM) REGULATIONS OF 1912, DURING THE
YEAR ENDED, DECEMBER 31st, 1928.**

1.—Milk and Cream Not Sold as Preserved Cream :

					Number of Samples examined for the presence of Preservatives.	Number of Samples in which Preservative was reported to be present and percentage of Preservative found in each Sample.
					—————	—————
Milk	..	..	..	..	148	Nil
Cream		..	..	..	12	Nil

2.—Cream Sold as Preserved Cream :

(a) Instances in which samples have been submitted for analysis to ascertain if the statement on the label as to Preservative was correct :—

(1) Correct statements made	..	..	..	..	Nil
(2) Incorrect statements made	..	..	..	..	Nil

(b) Determinations made of Milk Fat in Cream sold as Preserved Cream :—

(1) Above 35%	..	..	..	..	..	Nil
(2) Below 35%	..	..	..	..	..	Nil

Preservatives :

The Public Health (Preservatives, &c. in Food) Regulations, 1926, came into operation in four parts, the whole finishing on the 1st July, 1928. Under these Regulations Sulphur Dioxide and Benzoic Acid are the only Preservatives allowed to be used, and then only in such quantities as laid down by the Regulations.

In consequence of these Regulations a great outcry was heard during the Summer months by the Manufacturers. However, it is far better to have small quantities of Cream allowed to sour than to be "doctored" to keep it fresh. Synthetic or Re-constituted Cream made from Unsalted Butter, Milk Powder and Water, came on to the markets, but made little or no headway.

During the year the following samples were analysed for the presence of Preservatives but all were returned Genuine and conformed to the Regulations. :—

Description of Sample.	Number taken.
Ox Tongue	1
Salmon and Shrimp Paste..	1
Soup	1
Herrings in Tomato Sauce	1
Bacon	5
Ham	2
Sausage	7
Mincemeat	1
Wild Duck Paste	1
Bloater Creme	1
Essence of Rennet	1
Raspberry Jam	1
Brawn	5
Potted Meat	3
Fruit Wine	1
Jellied Veal and Ham	1
Corned Beef	1

FOOD AND DRUGS ACT—SAMPLES TAKEN FOR ANALYSES.

Description of Sample	Number Taken	Number Genuine	Number Not Genuine	Number Official Samples	Number Unofficial Samples	Remarks
New Milk	147	112	35	47	100	See special Report.
Grade " A " Milk	1	...	1	..	1	do.
Ground Rice	1	1	..	..	1	....
Rice	1	1	..	..	1	....
Margarine	8	8	..	1	7	....
Butter	13	10	3	1	12	100% Margarine. Vendor prosecuted.
Tinned Peas	1	1	..	..	1	....
Coffee	2	2	..	1	1	....
Refined Borax	2	2	..	..	2	....
Powdered Ginger	1	1	..	..	1	....
Camphorated Oil	1	1	..	..	1	....
Sago	1	1	..	..	1	....
Tapioca	1	1	..	..	1	....
Cream of Tartar	1	1	..	..	1	....

Description of Sample	Number Taken	Number Genuine	Number Not Genuine	Number Official Samples	Number Unofficial Samples	Remarks
Glycerine	1	1	..	..	1	....
Ox Tongue	1	1	..	..	1	....
Salmon and Shrimp Paste	2	2	..	..	2	....
Mock Turtle Soup ..	1	1	..	..	1	....
Herrings in Tomato Sauce	1	1	..	..	1	....
Table Cream	2	2	..	..	2	....
Cream Cakes	3	3	..	..	3	....
Bacon	5	5	..	..	5	....
Ham	2	2	..	..	2	....
Chocolate	5	5	..	..	5	....
Toffee	2	2	..	..	2	....
Sausage	7	7	..	1	6	....
Corned Beef	1	1	..	1	..	....
Pepper	3	3	..	1	2	....
Vinegar	1	..	1	1	..	Contained 3.66% Acetic Acid, being 0.34% deficient of the minimum standard of 4%. Vendor cautioned.
Ice Cream	1	1	..	..	1	....
Condensed Milk ..	2	2	..	..	2	....
Cream	12	12	..	..	12	....
Baking Powder ..	1	1	..	..	1	....
Mincedmeat	4	4	..	..	4	....
Tinned Salmon ..	2	2	..	..	2	Contained traces of tin.
Tinned Crab	1	1	..	..	1	do.
Tinned Pears	1	1	..	..	1	Contained 0.43 grains of tin per pound.
Tinned Loganberries	1	1	..	..	1	Contained 0.22 grains of tin per pound
Tinned Cherries ..	1	1	..	..	1	do.
Synthetic (or Reconstituted Cream)	1	1	..	..	1	do.
Wild Duck Paste ..	1	1	..	..	1	....
Bloater Creme	1	1	..	..	1	....
Essence of Rennett	1	1	..	..	1	....
Raspberry Jam	5	4	1	1	4	Contained added fruit juices. Vendor cautioned.
Mustard	1	1	..	1	..	....
Tea	1	1	..	1	..	....
Lard	5	5	..	2	3	....

Description of Sample	Number Taken	Number Genuine	Number Not Genuine	Number Official Samples	Number Unofficial Samples	Remarks
Strawberry Jam ..	4	2	2	1	3	Unofficial sample followed by official sample. Added fruit juices. Vendor prosecuted.
Whisky	1	1	..	..	1	.....
Soap	1	1	..	..	1	....
Brawn	5	5	..	..	5	....
Potted Meat ..	3	3	..	..	3	....
Veal and Ham ..	2	2	..	..	2	....
Biscuits	4	4	..	..	4	....
Sauce	4	4	..	..	4	....
Mixed Spice ..	1	1	..	..	1	....
Potted Salmon ..	1	1	..	..	1	....
Raisins	1	1	..	..	1	....
Currants	2	2	..	..	2	....
Ground Almonds ..	1	1	..	..	1	....
Sultanas	1	1	..	..	1	....
Fruit Wine	2	2	..	..	2	....
Lemon Peel	2	2	..	..	2	....
Tripe	2	2	..	..	2	....
	297	254	43	61	236	

ADMINISTRATIVE ACTION REGARDING "NON-GENUINE" MILK SAMPLES.

Number of Sample	Official or Unofficial	Result of Analysis	Action taken.
26	Unofficial	11.6% deficient in Fats 1.8% Added Water	Vendor Prosecuted (see Magisterial Proceedings No. 1)
29	do.	Genuine	
32	Official	2.6% deficient in Fats 3.4% Added Water	
33	do.	4.8% Added Water	
43	Unofficial	Genuine	
79	do.	Genuine	
31	do.	5.6% deficient in Fats	Official samples Nos. 34 and 35 declared by Analyst to be genuine. Farmer cautioned.
34	Official	Genuine	
35	do.	do.	

Number of Sample	Official or Unofficial	Result of Analysis		Action taken
59	Unofficial	5%	deficient in Fats	Further samples procured declared by Analyst to be genuine. Vendor cautioned.
62	Official	15.0%	deficient in Fats	Sample 78 declared by Analyst to be genuine. Vendor cautioned.
77	do.	17.3%	do.	
78	do.		Genuine	
64	Unofficial	11.6%	deficient in Fats	"Appeal to Cow" sample No. 159 shewed a deficiency of 5% fats. These samples were taken in the month of June when the weather was wet and cold, and as the "Appeal to Cow" sample was deficient, I was satisfied that the Farmer was not at fault. Advised the Farmer to get rid of some of his heavy milkers and procure stock which would give a higher fatty content.
148	do.	16.6%	do.	
156	Official	16.6%	do.	
157	do.	16.6%	do.	
158	do.	18.3%	do.	
159	Unofficial	5.0%	do.	
68	Unofficial	6.6%	deficient in Fats 1.4% Added Water	Further samples declared by Analyst to be genuine. Vendor cautioned.
104	do.	5.6%	deficient in Fats	Further samples declared by Analyst to be genuine. Vendor cautioned.
143	Official		Genuine	
106	Unofficial	16.6%	deficient in Fats	"Appeal to Cow" sample No. 145 shewed a deficiency of 25% fats. These samples were obtained during the cold and wet month of June. The whole of the cows were in good condition, extra cake was given and hours of milking regular, and it was obvious that the Farmer's intention was only to supply milk as it came from the cow.
135	do.	23.3%	do.	
144	Official	20.0%	do.	
145	Unofficial	25.0%	do.	
146	do.	46.6%	do.	
147	do.	21.6%	do.	
107	Unofficial	10.0%	deficient in Fats	Further samples declared genuine upon analysis. Vendor cautioned.
136	do.		Genuine	
109	Unofficial	6.6%	deficient in Fats	Further samples declared upon analysis to be genuine. Vendor cautioned.
113	do.	11.6%	do.	
137	do.		Genuine	

Number of Sample	Official or Unofficial	Result of Analysis	Action taken.
127	Unofficial	11.0% deficient in Fats	Further samples declared upon analysis to be genuine. Vendor cautioned.
138	Official	Genuine	
139	do.	8.3% deficient in Fats	
133	Unofficial	17.0% deficient in Fat	"Appeal to Cow" samples Nos. 141 and 142 shewed a deficiency of 6.6% and 31.6% of fats respectively. The latter was from a cow giving 3 gallons which represented 1/9th of the total meal. This cow was undoubtedly responsible for the deficiency as when the morning's Milk was withdrawn the standard of 3% Fats was easily obtained. I advised the Farmer to reject 1 quart of the first drawn Milk from this cow at the morning's meal, and afterwards the Milk was genuine.
140	Official	13.3% do.	
141	Unofficial	6.6% do.	
142	do.	31.6% do.	
173	Unofficial	13.3% deficient in Fats	
218	do.	6.6% do.	Vendor cautioned as further samples were declared upon analysis to be Genuine.
224	Official	Genuine	
250	Unofficial	do.	
251	do.	do.	This deficiency was obviously due to the non-stirring of the Milk prior to serving. Vendor cautioned.
202	Unofficial	8.6% deficient in Fats	
203	Official	Genuine	
214	Unofficial	do.	Further samples declared upon analysis to be Genuine. Vendor cautioned.
220	Unofficial	6.6% deficiency in Fats	
266	Unofficial	5.6% Added Water	Vendor Prosecuted (see Magisterial Proceedings No. 11)
269	Official	8.1% Added Water	
270	do.	Genuine	
272	Unofficial	do.	
273	do.	do.	
274	Official	do.	
275	do.	do.	
276	do.	do.	
277	do.	do.	

As will be noted from the above table, 36 samples of Milk did not comply with the Standard as laid down by the Sale of Milk Regulations, 1901, that the Fat Content shall be 3% and the Non-Fatty Content 8.5%. This large number (36), representing 24.3%, is due to the manner in which I procure the samples, *i.e.*, direct from the Farmers churns before they reach the Dairies; as when they arrive at the Dairies they are usually mixed and seldom fall below the required Standard. The average Fatty Content of the 148 samples procured for analysis proved to be 3.25%.

The present Standard (3% Fats and 8.5% Non-Fatty Solids) is a source of trouble and worry to the Food Inspector, insofar as it is presumed in Law to be a good defence if the Farmer can prove to the satisfaction of the Court that the Milk has not been tampered with, but sold as it came from the Cow. There is a great diversity of opinion in this direction. Food, breed, atmospheric conditions, &c., all play an important part. Comparisons as to the number of samples "Not-Genuine" from other towns must not be taken seriously, unless the methods of sampling are given. It is unwise for the Inspector to procure samples of Milk from known good supplies. Large Dairies seldom, if ever, by mixing the Milk from the various farms, fall below the presumed Standard; but the small Dairyman receiving his supplies from one farm is easily likely to cause a series of "Non-Genuine" samples. One wonders then, if the correct procedure is to procure samples from individual Farmers before the Milk is mixed, or after the Milk is mixed, and in "Course of Delivery" to the consumer. During the year I have invariably carried out the former method with the result that there is an increase of 75% in the number of "Non-Genuine samples."

Informal or Test Samples :

It will be observed from the tabulated statement, that 61 Informal and 236 Formal Samples were taken during the Year, all of which were submitted to the Public Analysts for analysis.

Informal Samples are in all cases purchased by an Agent, and if they are found to be adulterated, Formal Samples are obtained with a view to Summary Proceedings being taken. It has been found that the obtaining of Informal Samples is, on the whole, a very convenient method of estimating whether vendors are supplying genuine articles and causes no inconvenience to the shopkeepers, as when the samples are obtained formally the latter involves explanation as to why the sample has been purchased, the subsequent division of the sample into three parts and the sealing up of same, which all take a considerable time.

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

The above Regulations lay down that 3 hours Notice of intended slaughter must be given. By this means, every animal slaughtered within the Borough is inspected as to its condition before it is removed from the slaughter-house. During the Year 3,260 notifications were received in addition to 16 regular slaughterings, where operations are carried on daily.

The following have been slaughtered and inspected before removal to the shops :

Species.	Public Abattoir.	Private Slaughterhouses.
Bulls	166	236
Bullocks	471	1,834
Cows	503	588
Heifers	472	1,327
Calves	639	690
Sheep	5,699	13,033
Pigs	5,000	11,344
	<hr/> 12,950	<hr/> 29,052

Of the 42,002 animals slaughtered, 41,219 or 98.14% were found to be sound and unaffected by disease of any nature ; 542 or 1.30% were found to be affected with Tuberculosis, and 241 or 0.56% were found to be affected with other diseases or conditions (see Table).

In addition, a large number of carcasses that have been slaughtered outside the Borough are received into the various wholesale warehouses, and a regular inspection is made.

These warehouses are often a source where diseased meat finds its way to the consumer, as the inspection of carcasses in rural areas is not carried out the same as in larger towns.

PARTICULARS OF SURRENDERS AND SEIZURES OF UNSOUND ANIMALS AND MEAT.

Number of Voluntary Surrenders of diseased carcasses, or part carcasses or internal organs, by butchers to Chief Inspector.

Number of seizures (with subsequent destruction) of diseased carcasses or part carcasses or internal organs by Chief Inspector.

Year.	Tuberculosis	Other Conditions.	Tuberculosis	Other Conditions	Total
1926	151	103	2	1	257
1927	358	153	..	..	511
1928	542	241	..	..	783

A notable feature is the increase in the number of animals affected, but this is chiefly due to the great increase in organs only affected, viz. :—

	Whole carcasses affected.	Part carcasses affected	Organs only affected
1926	108	66	83
1927	112	112	287
1928	192	191	400

Number and Class of Animals affected by various

							Whole Carcases affected and Condemned								
							Bulls	Bullocks	Cows	Heifers	Calves	Pigs	Sheep	Total	Percentage
Tuberculosis	..	..	..	..	..	..	4	14	56	7	6	66	1*	154	0.367
Abscesses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Flukes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cysts	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jointill	..	..	..	..	..	..	..	..	..	1	..	..	..	1	0.002
Bruised	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pericarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cirrhosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suffocation	..	..	..	..	..	..	..	..	..	1	5	4	10	0.024	
Mammitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lipomato	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cavernous Angioma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nephritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Actinomycosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Melanosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Septicæmia	..	..	..	..	..	..	..	..	2	..	1	1	4	0.009	
Congestion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Moribund	..	..	..	..	..	..	..	..	..	..	1	1	2	0.005	
Pleuritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia	..	..	..	..	..	..	..	..	..	..	4	..	4	0.009	
Inflammation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..	2	..	2	0.005	
Emaciation	..	..	..	..	..	..	..	..	..	..	..	2	2	0.005	
Dropsy	..	..	..	..	..	..	..	..	1	..	1	8	10	0.024	
Immature	..	..	..	..	..	..	..	..	..	1	1	..	2	0.005	
Fatty Infiltration	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fevered	..	..	..	..	..	..	..	..	1	..	..	..	1	0.002	
							4	14	60	7	9	81	17	192	0.457

*It will be observed that one Sheep was condemned as suffering from Tuberculosis. This is so extremely
no doubt exists in my mind that it would

Diseases or Conditions, and Condemned during the Year 1928.

Part Carcases affected and Condemned									Organs only affected and Condemned									Total	Percentage
Bulls	Bullocks	Cows	Heifers	Calves	Pigs	Sheep	Total	Percentage	Bulls	Bullocks	Cows	Heifers	Calves	Pigs	Sheep	Total	Percentage		
4	9	31	3	..	135	..	182	0.433	9	22	101	7	5	62	..	206	0.490	542	1.290
..	2	8	5	1	..	1	..	17	0.041	17	0.041
..	3	28	12	17	..	..	..	60	0.142	60	0.142
..	5	2	..	35	..	42	0.099	42	0.099
..	1	0.002
..	..	2	..	..	1	..	3	0.007	..	..	..	..	..	..	..	..	..	3	0.007
..	1	..	1	0.002	1	0.002
..	1	1	..	..	15	..	17	0.041	17	0.041
..	1	..	..	..	1	0.002	..	..	..	..	..	..	..	..	..	1	0.002
..	10	0.024
..	5	..	..	..	..	5	0.012	5	0.012
..	2	..	..	..	..	2	0.005	2	0.005
..	5	..	..	..	..	5	0.012	5	0.012
..	2	1	2	1	..	..	..	6	0.015	6	0.015
..	..	1	..	..	..	..	1	0.002	..	..	..	..	..	..	..	..	..	1	0.002
..	1	1	1	1	..	..	..	4	0.009	4	0.009
..	..	1	..	..	..	..	1	0.002	..	..	1	..	..	..	..	1	0.002	6	0.015
..	2	..	..	..	22	..	24	0.057	24	0.057
..	2	0.005
..	1	..	..	..	..	..	1	0.002	..	..	..	..	..	..	..	..	..	1	0.002
..	1	..	1	4	..	6	0.015	10	0.024
..	3	..	3	0.007	3	0.007
..	2	0.005
..	2	0.005
..	2	2	0.005	..	..	..	..	..	..	..	..	..	12	0.029
..	2	0.005
..	1	..	..	..	..	1	0.002	1	0.002
..	1	0.002
4	10	35	4	..	136	2	191	0.454	17	63	142	29	6	143	..	400	0.952	783	1.863

are that I endeavoured to trace the history, but without success. If that had been possible, however, have been found to be a bottle fed pet lamb.

Below is a list of Foodstuffs that were found to be unsound and unfit for human consumption. All were surrendered and destroyed.

					Number	Weight.
Beasts	..	..	..	..	85	3,381 stones
Pigs	..	..	..	..	81	697 „
Sheep	..	..	..	..	17	76 „
Calves	..	..	..	..	9	64 „
Beef	..	..	..	..	..	279 „
Pork	..	..	..	..	..	128 „
Veal	..	..	..	..	..	2 „
Offal	..	..	..	..	..	255 „
Frozen Beef	..	..	..	..	..	30 „
*Rabbits	..	..	..	..	114	17 „
Bacon	..	..	..	..	..	6 „
Frozen Salmon	..	..	..	..	..	43 „
Potatoes	..	..	..	..	..	736 „
Turnips	..	..	..	..	(1 Truck)	888 „
*Apples	..	..	..	..	(8½ boxes)	59½ „
Fish	..	..	..	..	..	8 „
Pears	..	..	..	..	..	3 „
Eggs	..	..	..	..	30	..
Prawns	..	..	..	..	..	7 pounds
Boiled Ham	..	..	..	..	..	5 „
Corned Beef	..	..	..	..	..	6 „
Jellied Veal	..	..	..	..	..	12 „
Yeast	..	..	..	..	(4½ Bags)	31 „
Grapes	..	..	..	..	(2 Boxes)	20 „
Chicken	..	..	..	..	1	3½ „
†Margarine	..	..	..	..	..	17 „
Condensed Milk	..	..	..	..	(34 Tins)	..
Total						6,679 st 10½ lbs.

*1 Rabbit and 3½ pounds Apples seized.

†17 pounds Margarine seized from a Hawker selling as Fresh Country Butter—Proceedings instituted (see Magisterial Proceedings, Case No. 7).

The total weight of Butchers' Meat and other Foodstuffs surrendered and seized during the year amounted to 6,659 stones, as compared with 4,197 stones in 1927, and 3,563 stones in 1926.

Of the 4,912 stones of Butchers' meat condemned, 4,400 stones were affected with Tuberculosis.

TUBERCULOSIS ORDER, 1925.

During the year no notifications were received from Farms within the area of animals suffering or suspected of suffering, from Tuberculosis as required under this Order.

In all cases where whole or part carcases were found affected with Tuberculosis the responsible Official of the Authority from whence the animal came was notified. 73 such Notifications were sent out during the year, and in the majority of cases good results accrued.

THE MARGARINE ACT, 1887, AND THE SALE OF FOOD AND DRUGS ACT, 1899.

Number of Manufacturers	..	..	..	..	Nil
Number of Wholesale Dealers	..	..	..	..	25
Number of Premises Registered	..	..	..	..	25

BUTTER AND MARGARINE ACT, 1907.

There are 3 Butter making Factories in the town. Regular Butter making is not carried on, and only when Milk is surplus at these Dairies is Butter manufactured.

MAGISTERIAL PROCEEDINGS.

Number of Case	Complaint	Result
1	Selling Milk 2.6% deficient in Fats with 3.4% Added Water	Case dismissed.
2	Failing to comply with Notice served under Public Health Acts	Case withdrawn upon payment of costs.
3	Opening drainage without first giving requisite Notice as required under Middlesbrough Corporation Act, 1914	Fined 40/- and Costs.
4	Do.	Fined 20/- and Costs.
5	Do.	Fined 40/- and Costs.

Number of Case	Complaint	Result
6	Failing to give requisite Notice of Child suffering from Smallpox	Fined 10/-
7	Selling Margarine as Fresh Country Butter	6 months imprisonment with Hard Labour.
8	Opening drainage without giving requisite Notice as required under Middlesbrough Corporation Act, 1914.	Fined 20/- and Costs.
9	Selling Jam wrongly described on Label	Dismissed with Costs.
10	Contravening Section 73 of the Public Health Act, 1925, by giving books in exchange for rags, etc.	Fined 40/-.
11	Selling Milk containing 8.1% Added Water	Fined £5 and Costs.
12	Contravening Section 28 of Milk and Dairies Order, 1926, by not cleansing churns prior to returning to Producer	Fined 20/- and Costs.

PUBLIC MORTUARY.

The Public Mortuary is situated at the Local Board Yard in Commercial Street. It is adequately and well maintained and kept in a cleanly condition by the Caretaker. During the year 44 bodies were removed to the Mortuary.

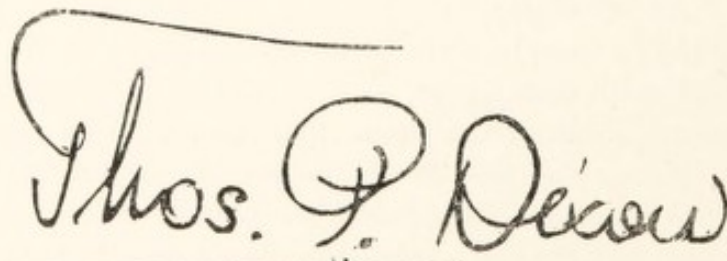
SCHOOLS—SANITARY CONDITION AND WATER SUPPLY.

During the summer vacation the drains of all Council Schools were cleansed and disinfected efficiently and all apparent defects were remedied.

The whole of the water supplies are direct form the mains of the Tees Valley Board.

RAG FLOCK ACTS, 1911 AND 1928.

No action was taken under these Acts during the past year.



Chief Sanitary Inspector.

PREVALENCE AND CONTROL OVER INFECTIOUS DISEASES.

During the year 1928, there were 5,366 cases of Infectious Disease notified, this being an increase of 531 cases compared with the previous year, due to the prevalence of Measles and Chickenpox both of which are notifiable.

The mortality rate from the chief Zymotic Diseases during the year 1928 was 0.31 per 1,000 of the population. The rate in the previous year was 0.01.

The death-rates per 1,000 population in the County Boroughs and Great Towns for certain diseases for 1928 were as follows:—

	Enteric Fever	Small- pox	Measles	Scarlet Fever	Whooping Cough	Diph- theria	Influ- enza
107 County Boroughs and Great Towns ..	0.01	0.00	0.15	0.02	0.09	0.09	0.17
Middlesbrough ..	0.01	0.00	0.25	0.00	0.024	0.03	0.36

Smallpox.

The epidemic of mild Smallpox, which had been prevailing since 1919, terminated in September, 1928.

There was one death from this disease in 1928, that of an aged and chronic infirm male, who contracted the disease in the Union Infirmary and died after a few hours illness.

P. H. (Infectious Disease) Regulations, 1927.

The only disease notified during 1928 under the above-mentioned Regulations was Pneumonia (Acute Primary and Influenzal). Nursing assistance was provided in 44 cases, and Pneumonia Jackets were supplied for 10 Infants.

Upon investigation it was found that overcrowding was one of the chief factors in these cases.

Vaccination.

The Medical Officer of Health performed 102 Primary Vaccinations and 66 Re-vaccinations under the Public Health (Smallpox) Regulations, 1917.

Prevention of Blindness.

No action was taken under section 66 of the Public Health Amendment Act, 1925.

SMALLPOX. 1928.

VACCINAL CONDITION	Sex	AGES OF ATTACKED											Total	
		Under 1 year	1—2	2—3	3—4	4—5	5—10	10—15	15—25	25—45	45—55	55—65		Over 65 year
Vaccinated ..	Male	..	..	..	..	..	..	..	2	7	4	12	8	33
	Female	..	..	..	..	..	1	..	1	8	6	1	..	17
Unvaccinated...	Male	2	..	1	5	3	12	10	17	5	3	1	2	61
	Female	1	..	1	3	..	17	25	25	5	1	1	..	79
Total Vaccinated Total Unvaccinated		..	..	..	..	..	1	..	3	15	10	13	8	50
		3	..	2	8	3	29	35	42	10	4	2	2	140
Total ..		3	..	2	8	3	30	35	45	25	14	15	10	190

NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS) DURING THE YEAR 1928.

DISEASE	TOTAL CASES NOTIFIED								Cases admitted to Hospital	TOTAL DEATHS							
	At Ages									0 to 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	Over 65 years	Total
	At all ages	0 to 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	Over 65 year									
Diphtheria ..	97	1	32	41	11	7	4	1	90	..	1	2	..	..	..	1	4
Erysipelas ..	84	2	..	6	13	19	34	10	1	..	..	..	..	..	3	1	4
Scarlet Fever ..	237	2	92	113	25	5	..	..	226	..	1	..	..	..	..	..	1
Smallpox ..	190	3	18	61	45	24	30	9	189	..	..	..	..	..	..	1	1
Pneumonia, Acute Primary ..	398	22	85	77	62	76	57	19	..	48	55	9	16	43	46	49	266
Pneumonia, Influenzal ..	87	3	13	13	15	22	15	6	..	1	3	4	3	9	18	10	48
Chickenpox ..	1,115	74	422	603	14	2	..	..	..	..	..	..	..	..	..	..	..
Measles ..	2,865	186	1,643	1,016	15	5	..	..	..	7	24	2	..	..	..	..	33
Enteric Fever ..	6	..	..	..	4	1	1	..	5	..	..	..	2	..	..	..	2
Puerperal Fever ..	24	..	..	..	10	14	..	..	..	..	..	..	..	4	..	..	4
Puerperal Pyrexia ..	34	..	..	..	10	24	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia Neonatorum ..	22	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis Lethargica ..	5	..	..	1	1	1	2	..	..	..	..	..	..	..	..	..	..
Cerebrospinal Fever ..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	5,165	315	2,306	1,931	225	200	143	45	511	56	84	17	21	56	67	62	363
1927 ..	4,363	319	2,010	1,560	138	167	126	43	331	65	122	16	14	47	82	61	407

CHIEF ZYMOTIC DISEASES, 1928.

Attack and Mortality Rates per 1,000 population in the Wards
from certain Infectious Diseases during the year 1928.

WARD		Scarlet Fever	Diphtheria	Measles	Chickenpox	Smallpox	Enteric and Continued Fevers
Ayresome ..	Attack	3.00	0.69	14.54	6.54	2.23	0.20
	Mort.	..	..	..	..	..	0.07
Acklam ..	Attack	1.60	0.38	14.97	17.97	1.27	..
	Mort.	0.09	..	0.19	..	..	..
Cannon ..	Attack	2.34	1.01	24.72	11.15	1.68	0.16
	Mort.	..	..	0.33	..	..	0.08
Cleveland ..	Attack	2.13	0.79	27.02	9.92	1.42	..
	Mort.	..	..	0.17	..	..	..
Exchange ..	Attack	0.11	0.34	19.63	17.11	1.73	..
	Mort.	..	..	..	..	..	..
Grove Hill ..	Attack	2.51	0.53	37.18	12.59	0.60	..
	Mort.	..	0.08	0.08	..	..	..
Linthorpe ..	Attack	1.88	0.98	24.23	8.23	0.44	..
	Mort.	..	0.08	0.08	..	..	..
Newport ..	Attack	1.65	0.62	21.03	6.52	2.98	..
	Mort.	..	0.08	0.88	..	..	..
Ormesby ..	Attack	1.33	1.26	16.28	6.14	1.26	0.08
	Mort.	..	0.08	0.16	..	..	..
St. Hilda's ..	Attack	0.70	0.70	17.85	7.08	1.10	..
	Mort.	..	..	0.47	..	0.08	..
Vulcan ..	Attack	1.08	0.66	23.27	9.43	1.08	..
	Mort.	..	..	0.33	..	..	..
Whole Borough ..	Attack	1.80	0.73	21.75	8.47	1.44	0.04
	Mort.	..	0.03	0.25	..	..	0.01

Report of the Medical Officer of West Lane Hospitals for the Year 1928.

There were 43 cases remaining in the Hospital at the beginning of the year 1928. 420 cases were admitted to the wards during the year, and 406 cases were discharged. Fifteen deaths occurred in the Institution giving a case mortality rate of 3.57 per cent. 83 cases came from outside districts and 337 from Middlesbrough itself. October and November months showed the greatest number of admissions while comparatively few cases were admitted in June and August. At the end of the year 57 cases were remaining in residence.

DIPHTHERIA.

There were 5 cases of Diphtheria in residence at the commencement of the year and the admissions to the diphtheria ward totalled 100. 1 case admitted as diphtheria was found to be suffering from measles and bronchitis. 10 cases came from outlying districts. Six deaths occurred in the wards, and of these, two were from pneumonia. Three of the deaths took place within 24 hours of admission. Further details as to the fatal cases are given below :—

Age	Admitted	Stay-in-Hospital	Cause of Death
6 years	10th day of disease	7 hours	Cardiac failure and Diphtheria
2 „	9th „	24 hours	„ „ „
6 „	7th „	6 hours	Cardiac failure following tracheotomy for laryngeal obstruction
2 „	7th „	9 days	Diphtheria and terminal broncho pneumonia
5 „	4th „	4 days	Lobar pneumonia
5/12 „	8th „	8 days	Broncho pneumonia

Tracheotomy was resorted to in two cases, one collapsed and died within an hour of the operation and the other made a good recovery.

Anti-diphtheritic serum was administered to all cases in varying doses from 4,000 units to 24,000 units. The majority of cases were of a very mild nature and were

discharged after a stay of four weeks subject to two successive swabbings from the throat being returned as negative. 42 cases out of the 99 gave a positive finding of the Klebs Loeffler Bacillus from bacteriological examination of the swabs. Most of the bacteriological examinations are now undertaken at the Hospital thus enabling the taking of at least two successive negative swabs from each patient before discharge and at much less expense.

Complications included :

Peritonsillar Abscess	2	Cardiac Arythmia	4
Epistaxis	2	Broncho-Pneumonia	3
Otorrhoea	3	Rhinorrhoea	5
		Palatal Paralysis	1

SCARLET FEVER.

At the beginning of the year there were 37 cases of Scarlet Fever remaining in Hospital. 292 cases were admitted to the wards during the year, this being an increase of 61 as compared with the admission for 1927. 66 patients came from outside areas.

An analysis of the 292 cases shows :

Scarlet Fever	276	Scarlet Fever and Pertussis	2
Scarlet Fever and Measles ..	9	Scarlet Fever and Smallpox	1
Scarlet Fever and Chickenpox	4		

Among the total cases there was one death—a girl of 12 who died from encephalitis lethargica, from which she was suffering when admitted with scarlet fever. A survey of the age incidence shows the usual predominance of the 5-15 group, but there was decided increase of the cases over 15 years of age. The disease was of a very mild nature in the majority of cases and only seven were classified as septic scarlet fever. Scarlet fever anti-streptococcal serum was administered to 29 cases, the mildness of the other cases not necessitating its use. Complications occurred in two of the patients who had been treated with serum, one patient had nephritis on admission and the other developed adenitis. Operative measures were resorted to on seven occasions. Four suppurating glands of the neck were incised and drained and two peritonsillar abscesses were opened. In one case of submaxillary adenitis tubercular glands in the neighbourhood became involved and were excised.

Two other cases call for special mention, one a smallpox contact was admitted and isolated with scarlet fever, subsequently he developed smallpox and was removed to the Hemlington Smallpox Hospital. After three weeks he was returned to West Lane to finish his convalescence from scarlet fever. One woman had a miscarriage and as the delivery was complicated the foetus and placenta were removed under anaesthesia.

Six "return cases" were admitted during the course of the year and these were traced to four discharged cases who had developed rhinorrhoea after returning home. The return case rate for the year was 1.5 per cent. Two minor outbreaks of cross infection occurred in the scarlet fever wards due to two patients admitted with scarlet fever being in the incubation period of measles and chickenpox respectively. Four cases of measles and two of chickenpox resulted; further spread being prevented by immediate removal and isolation of the primary and subsequent cases.

Complications included :

Rhinitis	..	..	..	15	Arthritis	..	..	5
Adenitis	..	..	..	13	Peritonsillar Abscess	..	..	4
Suppurative Adenitis	..	..	..	5	Epistaxis	..	..	5
Nephritis	..	..	..	4	Otorrhoea	..	..	15
Perforated Palate	..	..	..	1	Miscarriage	..	..	1

TYPHOID FEVER.

During the course of the year 9 cases were admitted to the wards and in addition, two were sent in for observation. One of the nine cases and both of the observation cases were found to be suffering from diseases other than typhoid fever. One case of paratyphoid fever was remaining in Hospital at the beginning of the year.

Three deaths from enteric fever occurred. Two of these were sisters, who together with their brother were admitted suffering from a very virulent type of the disease. The third death was that of a nurse who was attending the former cases for some eight days. The nurse died from peritonitis within three weeks.

Three cases gave a positive Widal result to typhoid, three to paratyphoid B. and the reactions of the rest were not taken or negative. Details as to the fatal cases are given below :—

No.	Sex	Age	Widal	Stay in Hospital	Cause of Death
1	F.	8	Pos. Enteric	7 weeks	Asthenia and cardiac failure after two relapses.
2	F.	14	Pos. Enteric	5 weeks	Never rallied—died peritonitis and perforation (P.M. examination)
3	F.	20	Not taken	19 days	Collapsed—died of peritonitis.

Complications met with included otorrhoea, epistaxis, peritonitis and perforation.

OBSERVATION CASES.

Five cases were admitted during the year—one of the five being admitted as typhoid but found to be suffering from acute tubercular meningitis. Three deaths occurred among this series and further information is given in the table below. The remaining cases were classified as pleurisy and a mixed infection of measles and scarlet fever respectively.

No.	Sex	Age	Widal	Stay in Hospital	Cause of Death
1	F.	14	Not taken	3 days	Acute Tubercular Meningitis, confirmed lumbar puncture, P.M.
2	F.	54	Negative	5 days	Broncho-pneumonia—chronic nephritis
3	F.	14	Negative	6 weeks	Acute Miliary Tuberculosis—confirmed. P.M. examination and microsections.

MISCELLANEOUS CASES.

Three smallpox contacts were isolated at the Hospital during the year. Three Lascars from the s.s. "Margha" were isolated and treated for chickenpox for the Tees Port Sanitary Authority. Seven cases of measles were received from convent schools and General Hospitals. One case of septic meningitis was admitted and died within twenty four hours; this case was notified to the Coroner and an inquest held. There was one case of erysipelas treated at the Hospital in 1928.

W S Walton.

Resident Medical Officer.

Cases of Infectious Disease treated at the Corporation Hospitals during 1928.

DISEASE	Cases admitted and Deaths per month																											
	Remaining in Hospital December 31st, 1927.	January		February		March		April		May		June		July		August		September		October		November		December		Totals		
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	
West Lane Hospitals—																												
Scarlet Fever ..	37	22	..	15	..	14	1	18	..	23	..	14	..	27	..	19	..	31	..	42	..	35	..	32	..	329	1	
Diphtheria ..	5	7	..	10	..	9	1	11	1	6	..	9	..	11	..	5	..	6	..	10	1	8	..	5	1	102	4	
Enteric Fever ..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	4	..	2	2	1	1	..	..	9	3
Chickenpox ..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
Measles ..	..	..	..	..	..	1	..	3	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	7	..
Meningitis ..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2	2
Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..
Smallpox																												
Contacts ..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
Pneumonia ..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2	2
Observation ..	..	1	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	1	1	..	1	5	3
Total ..	43	30	1	27	..	28	2	34	1	34	2	23	..	38	..	24	..	42	1	56	4	45	2	39	2	463	15	
Tuberculosis Hospital—																												
Pulmonary—																												
Male ..	12	10	1	5	1	6	..	7	..	8	3	7	2	8	..	5	..	7	..	6	..	6	..	5	2	92	9	
Female ..	12	7	1	7	..	9	2	4	..	8	1	3	..	10	..	5	..	1	..	8	1	5	..	2	1	81	6	
Total ..	24	17	2	12	1	15	2	11	..	16	4	10	2	18	..	10	..	8	..	14	1	11	..	7	3	173	15	
Non-Pulmonary																												
Male ..	5	..	..	..	..	..	..	3	2	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	11	2
Female ..	2	1	..	1	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1	1	1	9	2
Total ..	7	1	..	1	..	1	..	4	2	..	..	1	..	1	..	1	..	1	..	..	..	1	1	1	1	20	4
Total T.B.	31	18	2	13	1	16	2	15	2	16	4	11	2	19	..	11	..	9	..	14	1	12	1	8	4	193	19	
Hemlington Hospital—																												
Smallpox ..	8	51	..	35	..	13	..	19	..	37	..	15	..	18	..	15	..	2	..	1	..	..	..	..	..	214	..
Observation ..	..	2	..	3	..	1	..	..	..	1	..	4	..	2	..	..	..	..	..	..	..	..	..	..	..	13	..
Contacts ..	1	..	..	2	..	..	..	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	7	..
Total ..	9	53	..	40	..	14	..	19	..	41	..	20	..	20	..	15	..	2	..	1	..	..	..	..	..	234	..

CASES REMOVED TO HOSPITAL FROM OUTSIDE AREAS DURING 1928.

WEST LANE HOSPITAL	Scarlet Fever	Diphtheria	Chicken-pox	Enteric Fever	Total
Thornaby	28	9	..	4	41
Seamer	14	..	..	..	14
Stokesley	13	..	..	..	13
Bilsdale	3	..	..	..	3
Carlton	3	..	..	..	3
Crathorne	2	..	..	..	2
Marton	1	1	..	..	2
Stainton	1	..	..	..	1
Yarm	1	..	..	..	1
Tees Port Sanitary Authority ..	..	..	3	..	3
Total	66	10	3	4	83

Report of the Tuberculosis Officer for the Year 1928.

The number of persons who died of Tuberculosis in the County Borough of Middlesbrough was 199, 107 males and 92 females. Of this number, 156 died from Tuberculosis of the Lungs and 43 from Tuberculosis of other parts of the body. There were 5 more deaths from Tuberculosis this year than during 1927.

The death rate for the year was 15.10 per 10,000 of the population. The general death rate from all diseases, including Tuberculosis, was 14.26 per 1,000 of the population.

A table given at the end of this Report indicates the number of deaths in the various age groups, shewing also the distribution of Pulmonary and Non-Pulmonary mortality, according to sex.

INCIDENCE.

The number of new cases of Tuberculosis notified as occurring during the year was 471, of which 337 were cases of Tuberculosis of the Lungs, while 134 were cases of Tuberculosis of other parts of the body.

The following is a table indicating the number of notifications and deaths for the year, in each ward, with the equivalent rate per 1,000 of the population.

WARD	No. of Notifications	No. of Deaths	Ward Population	Notification Rate per 1,000 Population	Death Rate per 1,000 Population
Ayresome ..	40	23	14,370	2.78	1.60
Acklam ..	29	14	10,291	2.81	1.36
Cannon ..	66	19	11,932	5.53	1.58
Cleveland ..	48	19	11,288	4.25	1.68
Exchange ..	17	9	8,659	1.96	1.03
Grove Hill ..	33	16	13,179	2.50	1.21
Linthorpe ..	25	10	11,831	2.11	.84
Newport ..	62	24	12,740	4.86	1.88
Ormesby ..	39	13	12,709	3.06	1.02
St. Hilda's ..	76	30	12,712	5.97	2.35
Vulcan ..	36	22	11,989	3.002	1.83

An investigation was made to determine the mortality rate and incidence rate of Tuberculosis occurring in the houses built by the Corporation since the war, *i.e.*, in the Marton and Acklam Estates. It was found that the incidence of disease was less in these houses than in any of the wards of the town, while the mortality rate was lower than any of the wards with the exception of two wards.

DISPENSARY TREATMENT.

A considerable extension was made to the accommodation of the Dispensary by the occupation of the addition to the old rooms of that part of the building formerly tenanted by the Middlesbrough National Health Insurance Committee. The overcrowding of the waiting room and the consulting room that formerly existed has now been overcome to the great benefit of the patients and the staff of the Dispensary. The medical work was greatly facilitated and the comfort of the patient was much increased by the added accommodation.

During the year, there were 9,242 attendances at the Dispensary, while 6,918 visits were made by the Medical Officer and nurses to the homes of the sick. 471 new cases, or suspected cases of Tuberculosis attended for the first time during the year, exclusive of contacts, *i.e.*, people living in the same house as the patient. Of the 471, 403 were sent to the Dispensary by the patient's private Medical Attendant, for diagnosis before notification. This indicates that full use was made of the Dispensary by the medical practitioner as an aid to early diagnosis, which is recognised as one of the surest means of successfully coping with the disease.

Through recommendations from the Dispensary, 65 persons, mostly children, received Artificial Sunlight Treatment at the North Ormesby and Holgate Hospitals during the year.

RESIDENTIAL TREATMENT.

The total number of cases treated in West Lane Sanatorium was 196. Of these, 176 were cases of Pulmonary Tuberculosis, while 16 were treated for Non-Pulmonary Tuberculosis. 4 cases in which the diagnosis was doubtful, were admitted for observation, to enable a definite diagnosis to be made. During the year 146 patients were discharged from the Sanatorium, of whom 108 were much improved, while 38 cases shewed no material improvement. 19 patients died in West Lane Sanatorium.

In considering the results of treatment in this institution, it must be borne in mind that West Lane Sanatorium is the only local institution under the Public Authority for the treatment of Tuberculosis, and therefore patients in all degrees of advancement

of the disease have to be admitted, though preference is given to those cases in the earlier stages of the disease. Many cases are therefore admitted in the later stages of the disease which are too far advanced for Sanatorium Treatment and in other areas would not be admitted to sanatorium but to hospital.

VOLUNTARY CARE COMMITTEE.

The work of the Voluntary Care Committee has been carried on as in previous years. 41 patients were sent for four weeks convalescent holiday to Barnaby Moor. In addition 12 children were sent to the Cripples Home at Danby.

The administration of Extra Nourishment was carried out by the Voluntary Care Committee during the year as in previous years. An annual report of the activities of this Committee is published separately.

F. J. Henry.

Tuberculosis Medical Officer.

DEATHS FROM TUBERCULOSIS, 1928.

				SEX.	
				MALE.	FEMALE.
AGE PERIOD.					
PULMONARY	Under 15 years			11	9
	15—25 years			14	24
	25—35 years			21	15
	35—45 years			20	8
	Over 45 years			20	14
	Total over 15 years			75	61
Insured .. .. .	..	..	..	60	10
Non-Insured .. .. .	..	..	..	26	60

			SEX	
AGE PERIOD.			MALE	FEMALE
NON-PULMONARY	..	Under 15 years	17	15
		Over 15 years	4	7

TOTAL DEATHS :

Pulmonary	..	..	..	..	86	70
Non-Pulmonary		..	..	..	21	22
Total					107	92

INSTITUTIONAL TREATMENT, 1928.

West Lane Hospital :—

Pulmonary	..	Male	..	78	Female	..	73	Total	..	151
Non-Pulmonary	..	Male	..	7	Female	..	3	Total	..	10
(2 Males and 2 Females admitted for observation)									..	4

31 patients were receiving treatment on January 1st, 1928 165

Conditions of Patients Discharged :

Quiescent	..	..	..	..	..	—
Much Improved	..	..	..	..	..	108
No material Improvement	..	..	..	..	..	38
Died in Institution	..	..	..	..	..	19
						165

Tuberculosis Dispensary :—

Total new Cases examined (excluding Contacts)	..	..	471
Diagnosis	..	..	403
Notified by	..	..	59
Pensioners	..	..	4
Transfers	..	..	1
Voluntary	..	..	4
			471

Attendances, including Contacts	..	..	..	..	9,242
Home Visits	..	..	..	..	6,918
Sputum Examinations	..	..	..	..	466
X-Ray Examinations	..	..	..	..	13
Urine Examinations	..	..	..	..	14

Report of the Venereal Diseases Medical Officer for the Year 1928.

CLINIC—7, Grange Road Middlesbrough.

STAFF :—Medical Officer ; 2 Male Attendants ; 2 Nurses.

HOURS : (Medical Officer in attendance)—

MALES : Monday .. 8-30 a.m. and 5-30 p.m.
 Friday .. 8-30 a.m. and 5-30 p.m.

FEMALES : Wednesday.. 5-30 p.m.

IRRIGATION HOURS FOR MALES (ATTENDANTS ONLY) :—

Monday .. 8-30 a.m. and 5-30 p.m.
Tuesday .. 8-30 a.m. and 5-30 p.m.
Wednesday.. 8-30 a.m.
Thursday .. 8-30 a.m. and 5-30 p.m.
Friday .. 8-30 a.m. and 5-30 p.m.
Saturday .. 8-30 a.m.

Number of Cases under Observation and Treatment on January 1st, 1928.

Syphilis		Soft Chancre		Gonorrhoea		Other Cases		Total		Total all Cases
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
106	41	2	..	123	12	4	3	235	56	291

Occupation and State of Cases for the year 1928.

OCCUPATION.	MALES		OCCUPATION.	FEMALES.	
	Single	Married		Single	Married
General Labourers ..	86	53	Housewives ..	..	39
Shipyard Workers ..	14	19	Domestics ..	..	4
Machinists, &c. ..	31	19	Shop Assistant ..	1	..
Motor Mechanics, &c. ..	7	8	Waitress ..	1	..
Iron and Steelworkers ..	17	19	Charwoman ..	1	..
Railwaymen and Dockers	9	7	Actress ..	..	1
Painters and Decorators	4	1	Scholars ..	2	..
Joiners and Bricklayers	10	6	Infant ..	1	..
Clerical	22	6	Not stated ..	3	..
Actors and Variety					
Artistes	8	3			
Chemical Workers ..	7	4			
Shop Assistants ..	9	4			
Seamen	88	21			
Miscellaneous ..	42	19			
Total	354	189	Total ..	13	40

Number of Cases and the Diseases they were suffering from, dealt with for the first time during the years 1919 to 1928.

Year	Syphilis		Soft Chancre		Gonorrhoea		Other Cases		Total		Grand Total
	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Female	
1919	131	56	7	..	121	6	42	7	301	69	370
1920	274	54	35	..	293	22	178	14	780	90	870
1921	132	50	6	..	209	11	143	..	490	61	551
1922	141	15	21	..	159	9	161	13	482	37	519
1923	69	29	6	..	206	2	142	16	423	47	470
1924	75	20	7	..	200	7	113	26	395	53	448
1925	79	30	11	..	205	9	129	14	424	53	477
1926	77	32	12	1	236	18	130	14	455	65	520
1927	123	30	16	..	239	13	100	16	478	59	537
1928	118	22	7	1	284	16	134	14	543	53	596*
Total	1,219	338	128	2	2,152	113	1,272	134	4,771	587	5,358

*Middlesbrough Cases 366
 Seamen 109
 Other Areas 121

Total 596

Cases Classified in Age Groups.

Sex	Disease	Under One Year	1 to 5	5 to 14	14 to 16	16 to 17	17 to 18	18 to 19	over 19 Years	Total
MALE	Gonorrhoea ..	..	..	..	..	2	2	4	276	284
	Syphilis and Gonorrhoea ..	..	..	..	..	..	..	..	..	..
	Syphilis ..	1	..	..	..	..	..	2	115	118
	Soft Sore ..	..	..	..	..	..	..	1	6	7
	Other Conditions ..	..	..	..	..	..	2	1	131	134
	Total ..	1	..	..	..	2	4	8	528	543
FEMALE	Gonorrhoea ..	..	..	..	..	1	..	..	15	16
	Syphilis ..	..	..	2	1	..	..	..	19	22
	Soft Chancre ..	..	..	..	..	..	..	..	1	1
	Other Conditions ..	..	1	..	..	..	..	1	12	14
	Total ..	..	1	2	1	1	..	1	47	53

Nationality of Seamen treated at the Venereal Diseases Clinic
during the Year 1928.

British	..	..	..	..	..	79
Lascars	..	..	..	..	..	6
Spanish	..	..	..	..	..	5
Norwegian	..	..	..	..	..	5
Japanese	..	..	..	..	..	4
Chinese	..	..	..	..	..	6
French	..	..	..	..	..	1
Danish	..	..	..	..	..	1
Swedish	..	..	..	..	..	1
Jamaican	..	..	..	..	..	1
Total	..	..	..	..	..	109

Total Attendances in 1928 of all persons suffering from :—

Syphilis		Soft Chancre		Gonorrhoea		Other Cases		Total		Total all Cases
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
2,622	643	20	2	4,967	237	438	44	8,047	926	8,973

Middlesbrough	7,350
North Riding of Yorkshire	1,131
County of Durham	392

Total Attendances 8,973

Sessions and Attendances during 1928.

SEX	Number of Sessions	Total Attendances	Average Attendance per Session
Males	Morning - 105	1,816	17.3
	Evening - 105	4,514	42.9
Females	Evening - 52	938	18.1
Males : Irrigation only ..	Morning and Evening - 304	1,894	6.2

Totals for the Year 1928.

Total Number of Injections administered

	(Kharsulphan, Mercury and Bismuth) ..	2,427
„	„ Irrigations administered	4,917
„	„ Slides examined by Medical Officer	706
„	„ Wassermann Reactions	272

Total Number of Patients					Males.	Females	Total
1.	Uncompleted treatment	..	..	..	96	10	106
2.	Transferred to another Centre	..	..	..	146	12	158
3.	Discharged	..	..	..	224	29	253
4.	Under observation at the end of 1928	..	..	..	279	58	337
Total					745	109	854

A. Rogers

Medical Officer of Treatment Centre.

VENEREAL DISEASES CLINIC—RESULTS OF TREATMENT.

STAGE	Year	Syphilis		Soft Chancre		Gonorrhoea		Other cases		Total		
		Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Total
Before completion of First Course	1919	24	8	..	..	15	2	..	..	39	10	49
	1920	71	4	15	..	158	4	..	..	244	8	252
	1921	21	2	5	..	31	1	..	..	57	3	60
	1922	52	9	2	..	64	2	..	..	118	11	129
	1923	13	7	..	..	41	..	..	..	54	7	61
	1924	8	4	..	..	..	..	..	..	8	4	12
	1925	16	8	..	..	31	2	..	..	47	10	57
	1926	9	6	..	..	42	2	..	..	51	8	59
	1927	16	3	1	..	43	2	..	2	60	7	67
	1928	9	4	1	..	79	4	..	..	89	8	97
	Total	239	55	24	..	501	19	..	2	767	76	843
After One or more Courses	1919	..	..	..	..	..	..	..	..	..	..	..
	1920	..	..	..	..	..	..	..	..	..	..	..
	1921	29	..	..	..	..	..	..	..	29	..	29
	1922	24	15	..	..	12	1	..	..	36	16	52
	1923	18	2	..	..	..	..	..	..	18	2	20
	1924	7	3	..	..	..	..	..	..	7	3	10
	1925	1	4	..	..	..	..	..	..	1	4	5
	1926	2	2	..	..	..	..	..	..	2	2	4
	1927	..	..	..	..	..	..	..	..	..	..	..
	1928	6	2	..	..	..	..	..	..	6	2	8
	Total	87	28	..	..	12	1	..	..	99	29	128

Venereal Diseases Clinic—Results of Treatment—*continued.*

STAGE	Year	Syphilis		Soft Chancre		Gonorrhoea		Other cases		Total		
		Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Total
After completion but no Final Test	1919	6	2	..	..	11	..	..	..	17	2	19
	1920	11	..	..	..	2	..	..	..	13	..	13
	1921	17	..	..	..	12	..	..	..	29	..	29
	1922	7	3	..	..	10	1	..	..	17	4	21
	1923	12	1	..	..	..	..	..	..	12	1	13
	1924	4	2	..	..	32	3	..	..	36	5	41
	1925	..	..	..	..	..	..	..	..	..	..	..
	1926	..	4	..	..	..	..	..	..	..	4	4
	1927	..	..	..	..	..	..	..	..	..	..	..
	1928	1	..	..	..	..	..	..	..	1	..	1
	Total	58	12	..	..	67	4	..	..	125	16	141
Transfers	1919	11	3	..	..	8	2	..	..	19	5	24
	1920	88	14	7	..	65	4	..	..	160	18	178
	1921	85	1	..	..	46	1	3	..	134	2	136
	1922	73	12	..	..	67	4	..	..	140	16	156
	1923	57	10	5	..	78	..	..	..	140	10	150
	1924	35	5	4	..	75	3	..	..	114	8	122
	1925	63	5	1	..	73	..	..	..	137	5	142
	1926	31	12	9	..	93	2	..	..	133	14	147
	1927	61	10	6	..	104	6	..	..	171	16	187
	1928	66	8	4	..	76	4	..	..	146	12	158
	Total	579	80	36	..	685	26	3	..	1294	106	1400
Discharged Cured	1919	11	..	4	..	2	..	42	7	59	7	66
	1920	4	1	4	..	55	..	153	13	216	14	230
	1921	6	..	3	..	64	1	174	3	247	4	251
	1922	19	7	17	..	96	5	153	13	285	25	310
	1923	18	14	14	..	89	6	133	11	254	31	285
	1924	38	26	3	..	95	2	115	26	251	54	305
	1925	18	13	8	..	107	5	132	15	265	33	298
	1926	13	7	5	1	82	4	118	17	218	29	247
	1927	24	7	7	..	116	7	119	13	266	27	293
	1928	6	5	4	1	97	11	117	12	224	29	253
	Total	157	80	69	2	803	41	1256	130	2285	253	2538

Report of the Maternity and Child Welfare Medical Officer for the Year 1928.

(1)

MIDWIVES..

Forty-four Midwives, including four untrained, sent in their notice of intention to practise.

Of 3,273 births notified,
2,584 were by Midwives,
689 were by parents and Doctors.

As far as is known only 8 labours were conducted by handy women without a Doctor being present.

Of 2,584 births notified by Midwives,
332 were by the poor-law nurses and
309 by the Matron of the Municipal Maternity Home.

Of 1,948 births notified by private practising district midwives, medical aid was summoned 508 times, *i.e.*, in 26% of cases.

Visits of inspection to Midwives numbered 62.

MUNICIPAL MATERNITY HOME.

Number of cases delivered by Midwives	..	260
" " " by Doctors	..	49
		<hr/>
Total deliveries	..	309

Number of cases in which medical assistance was sought by the Midwife, 66, *i.e.*, in 21.3% of cases.

Number of cases notified as puerperal fever, 2, and as puerperal pyrexia, 4. All 6 recovered satisfactorily.

Number of cases of pemphigus, nil.

Number of cases of ophthalmia, nil.

Number of infants not entirely breast fed, 5.

Number of maternal deaths with causes, 3 :

(1) Collapse after birth of twins.

(2) Toxaemia of pregnancy.

(3) Eclampsia.

Number of foetal deaths, stillborn, 12.

within 10 days, 11.

Number of pupils who took their Central Midwives Board Certificate, 8.

NURSING HOMES REGISTRATION ACT.

From July to December, 1928, the number of applications for registration was 5.
All 5 were registered.

The number of exemptions asked was 2.

The number of exemption certificates granted was 2.

(2) GENERAL ARRANGEMENTS MADE FOR ATTENDING THE HEALTH OF EXPECTANT AND NURSING MOTHERS AND OF CHILDREN UNDER FIVE YEARS.

Health Visitors.

Number of visits paid :—

To expectant mothers ..	First visits	400	Total visits	1,008
To infants under 1 ..	First visits	3,390	Total visits	9,858
To children 1 to 5 ..	Total visits	5,307		

Centres—

Average attendance of children per session :

East Centre	101
Grove Hill Centre	66
Cannon Centre	152
American Red Cross Centre	74
Settlement Centre	78
North Ormesby Centre	107

Municipal Children's Hospital.

Number of cases admitted, 138. Average duration of stay, 32 days.

Reasons for admission :—

Non-thriving children	..	..	..	56
Rickets	..	..	..	31
Domestic reasons (<i>e.g.</i> , Confinement of mother)				24
Convalescents from measles, etc.	..	..		9
Tubercular contacts	..	..	..	5
To re-institute breast feeding	..	..		3
Miscellaneous	..	..	..	10
				138

Number of cases discharged	in good health	..	95
„	improved	..	24
„	with no improvement		14

Number of Deaths with cause :—

Pneumonia	..	..	..	..	3
Inanition	..	..	..	..	1
Intra cranial pressure	..	..	..		1

Ultra-Violet Irradiation.

Carbon arc lamp :—

Indication for treatment.	Number of children treated.					
Rickets	144
Non-thrivers	72
Tuberculosis of glands, bones, etc.	16
Miscellaneous	31

Mercury Lamp :—

Indication for treatment.	Number of children treated					
Rickets	61
Non-thrivers	38
Miscellaneous	12

Practically every child having light treatment was taking either Ostelin or Virol at the same time.

Number of children over 5 years treated	..	7
Indication for treatment : rickets	.. .. .	7

The school children were also provided with Ostelin. Their bony deformities do not respond so readily to light treatment as do the deformities of children under 5.

Good results were seen in the deformities from bow legs in children under 5. The deformities from knock knee on the other hand showed poor results after treatment.

One spectacular case can be cited from among others. A.T., a boy aged 4, weighed 28 lbs. (*i.e.*, the weight of a 2 year old child) before treatment. He was bow legged and lazy in his movements. At the end of 12 weeks of treatment, he weighed 36 lbs. and was running about. He continued taking Ostelin for 6 months and is now a straight legged boy.

Orthopaedic Treatment.

Number of children under 5 years of age seen by the surgeon		
from the Kirbymoorside Orthopaedic Hospital	..	15
Number of these recommended for Hospital	.. ..	7
Number already admitted	.. .. .	3

The orthopaedic surgeon holds a monthly clinic and the orthopaedic Sister a fortnightly session.

Ante-Natal Work.

Centre.	Average attendance per monthly session.						
East	12.8
Grove Hill	7.7
Cannon	31.2
American Red Cross	16.2
Settlement	26.0
North Ormesby	20.0

Apart from ante-natal work done by the Midwives practising in the district, two other ante-natal sessions are held :—

- (1) The Matron of the Municipal Maternity Home conducts the ante-natal examinations of the patients entered for the Home.

- (2) Holgate Hospital has a monthly ante-natal session for the patients entered for the maternity wards and for the patients attended by the Holgate nurses on the district.

Maternal Mortality.

Number of Deaths, 16.

Puerperal Sepsis, 2 following miscarriage	..	..	..	4
Eclampsia	..	..	..	4
Embolism	..	..	..	2
Collapse after delivery of twins	..	..	..	1
Cardiac failure, mitral disease	..	..	..	1
Syncope	..	..	..	1
Shock following difficult labour	..	..	..	1
Shock after Caesarean Section	..	..	..	1
Shock after necessary operation for emptying uterus	..			1

The Maternal Mortality investigations are made by the Medical Officer to Maternity and Child Welfare. No copies of reports sent to the Minister of Health are kept in the Maternity and Child Welfare office. Only the initials of the patient are given. The comments made by the practitioner in charge of the case are signed by his initials.

Infantile Mortality.

88 per 1,000.

Still Births.

These numbered 126 out of 3,273 notified births.

Of the 126 stillbirths :

62 at least were intra-natal.

64 had been dead two days or longer before birth.

Of the 62 intra-natal deaths, 18 were in primiparae.

Ascertainable causes were :

Forceps delivery	..	..	..	..	..	15
Prolonged second stage	..	..	..	..	..	14
Ante-partum haemorrhage	..	..	..	..	..	11
Difficult breech delivery	..	..	..	..	..	6
B.B.A.	..	..	..	..	..	4
Cord round neck	..	..	..	..	..	1

Of the 64 other still-births 18 were in primiparae.

Ascertainable causes were :

Ante-partum haemorrhage	11
Mechanical cause (fall, etc) ,.. .. .	11
Psychological cause (fright, worry, etc.)	4
Syphilis	6
Illness during pregnancy (influenza, etc.)	4
Albuminuria	4
Maldevelopment (anencephaly, etc.)	5
Inattention at birth	1

Post-mortem on 2 forceps deliveries showed meningeal haemorrhage.

Neo-Natal Deaths.

Of 119 deaths investigated, the ascertainable causes were :—

Prematurity	39
Feebleness of child from unknown causes	11
Anatomical causes :	
Spina Bifida	6
Intestinal obstruction	5
One case operated on revealed a " Mal-developed colon."	
Anencephaly	3
Congenital heart	3
Meningocele	2
Umbilical hernia : death of child after operation ..	1
Difficult labour, all forceps	12
A post-mortem in 3 cases showed meningeal hemorrhage.	
Convulsions—cause not ascertained	9
Icterus neonatorum	3
Syphilis	3
Haematemesis and purpura	2
Sepsis by the umbilicus	1
Lysol poisoning by the umbilicus	1
Atelectasis (1 after placenta praevia, 1 a B.B.A.	7
1 after a maternal death from eclampsia).	
Bronchitis or pneumonia (1 after a maternal death from	
lobar pneumonia)	6
Gastro-enteritis (in each case artificial feeding)	5

Illegitimate Births.

These number 157 out of 3,219 registered births.
Each baby is visited monthly.

Supply of Food and Milk.

Amount of Dried Milk given—499 packets.
Amount of Cocoa and Milk given—529 packets.

(3)

INFECTIOUS DISEASES.

Puerperal Fever.

Of 24 notified cases, 4 died.

Puerperal Pyrexia.

Of 34 cases notified, all recovered satisfactorily with the exception of 2. One died on the 9th day of pulmonary embolism and the other was suffering from pulmonary tuberculosis.

Provision has been made by the Maternity and Child Welfare Committee for the institutional treatment of women suffering from Puerperal Fever and Pyrexia, at the Holgate Hospital, at the cost of two guineas per week per case. Investigations in respect of cases of Puerperal Fever and Pyrexia are made by the Medical Officer to Maternity and Child Welfare.

Ophthalmia Neonatorum.

Notified	Cases Treated		Vision Unimpaired	Vision Impaired	Total Blindness	Deaths
	At home	In hospital				
22	17	5	21	Nil	Nil	Nil

Pemphigus Neonatorum.

There were 4 cases. All recovered satisfactorily.

Francis B. Piffen Dundas.

STATISTICAL TABLES.

**TABLE I.—Vital Statistics of Whole District during 1928
and previous years.**

YEAR	Population estimated to Middle of each Year.	BIRTHS			TOTAL DEATHS REGISTERED IN THE DISTRICT		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT			
		Uncorrected Number	Nett		Number	Rate	Of Non-residents registered in the District	Of Residents not registered in the District	Under 1 Year of Age		At all Ages	
			Number	Rate					Number	Rate per 1,000 Nett Births	Number	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1916	For Deaths: 115,548 For Births: 125,718	3,536	3,535	28.12	2,154	18.64	90	25	430	121	2,089	18.07
1917	For Deaths: 119,251 For Births: 132,931	3,059	3,062	23.03	2,366	19.84	92	34	465	151	2,308	19.35
1918	For Deaths: 115,752 For Births: 129,696	3,331	3,327	25.64	2,741	23.67	150	50	485	145	2,641	22.81
1919	For Deaths: 127,142 For Births: 132,444	3,534	3,531	26.66	2,437	19.16	132	34	493	139	2,339	18.39
1920	132,208	4,434	4,431	33.51	2,109	15.95	120	37	602	135	2,026	15.32
1921	133,400	4,240	4,218	31.62	1,967	14.74	106	32	501	118	1,893	14.41
1922	134,800	3,823	3,774	27.99	2,057	15.26	121	24	421	111	1,960	14.50
1923	135,400	3,726	3,728	27.53	1,876	13.85	139	28	321	86	1,765	13.03
1924	136,300	3,607	3,589	26.33	2,372	17.42	136	47	484	135	2,283	16.75
1925	136,200	3,503	3,501	25.70	2,123	15.58	167	28	342	97	1,984	15.56
1926	133,600	3,401	3,387	25.35	1,915	14.33	185	29	337	99	1,759	13.16
1927	133,600	3,149	3,140	23.50	1,933	14.46	200	43	274	87	1,776	13.29
1928	131,700	3,252	3,219	26.12	1,905	15.45	177	33	286	88	1,757	14.26

TABLE II.—INFANTILE MORTALITY, 1928. Nett Deaths from stated Causes

CAUSE OF DEATH					Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks and under 3 months	3-6 months	6-9 months
All causes	{	Certified .. ..	..	..	75	19	9	14	117	38	51	32
		Uncertified .. ..	..	..	4	..	..	..	4	..	1	..
		M.	F.									
Small-pox .. ..		..	..	..	..	..	..	..	..	..	..	..
Chicken-pox .. ..		..	..	..	..	..	..	..	..	..	..	..
Measles		6	1	..	..	..	..	..	..	..	1	2
Scarlet Fever .. ..		..	..	..	..	..	..	..	..	..	..	..
Whooping-Cough		7	9	..	..	..	..	1	1	2	3	3
Diphtheria and Croup .. ..		..	..	..	..	..	..	..	..	..	..	..
Erysipelas .. ..		..	..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis		1	2	..	..	..	..	..	..	..	1	1
Abdominal Tuberculosis .. ..		..	..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases		1	1	..	..	..	..	..	..	..	..	..
Meningitis (not Tuberculous)		7	1	..	1	..	..	1	2	..	1	3
Convulsions		13	8	4	2	1	3	10	10	3	5	1
Laryngitis .. ..		..	..	..	..	..	..	..	..	..	..	..
Bronchitis		7	6	1	..	1	..	2	2	5	1	2
Pneumonia (all forms)		33	15	..	1	..	..	1	1	8	13	12
Diarrhoea		8	2	..	..	..	..	1	1	2	2	1
Enteritis		14	13	..	..	..	..	2	2	7	11	4
Gastritis		3	1	..	..	1	1	2	2	..	2	..
Syphilis		4	1	2	..	..	..	2	2	2	1	..
Rickets .. ..		..	..	..	..	..	..	..	..	..	..	..
Suffocation, overlying		1	1	1	..	..	..	1	1	..	..	..
Injury at Birth		7	2	7	2	..	..	9	9	..	..	..
Atelectasis		3	3	4	1	..	..	5	5	..	1	..
Congenital Malformations		12	7	11	2	2	..	15	15	3	1	..
Premature Birth		29	17	32	5	1	4	42	42	3	1	..
Atrophy, Debility and Marasmus		17	8	11	3	1	1	16	16	3	5	1
Other Causes		11	4	6	2	2	..	10	10	..	3	1
Influenza		1	..	..	..	..	..	..	..	..	..	1
Total		184	102	79	19	9	14	121	121	38	52	32
NETT BIRTHS IN THE YEAR :—					NETT DEATHS IN THE YEAR OF :—							
Legitimate					3,062				Legitimate Infants			
Illegitimate					157				Illegitimate Infants			
Total					3,219				Total			
									266			
									20			
									286			

at various Ages under One Year.

9-12 months	Total Deaths under 1 year	Ayresome	Aeklam	Cannon	Cleveland	Exchange	Grove Hill	Linthorpe	Newport	Ormesby	St. Hildas	Vulcan	TOTAL
43	281												
..	5												
..
..
4	7	..	..	1	1	..	..	..	1	..	3	1	7
..
7	16	1	..	3	..	1	..	..	2	2	4	3	16
..
..
1	3	..	..	..	..	..	..	1	1	..	1	..	3
..
2	2	1	..	..	..	..	..	..	..	1	..	..	2
2	8	1	..	1	..	..	..	..	3	..	2	1	8
2	21	1	..	3	3	..	3	1	2	4	3	1	21
..
3	13	1	..	1	1	2	1	1	2	..	4	..	13
14	48	1	1	7	5	..	1	3	10	3	11	6	48
4	10	..	..	3	1	..	1	..	3	1	1	..	10
3	27	2	..	5	3	1	1	1	5	1	7	1	27
..	4	1	..	2	..	..	..	..	1	..	..	..	4
..	5	2	..	1	..	..	..	..	1	..	1	..	5
..
..	1	1	..	..	..	..	..	..	..	..	..	..	1
..	9	..	..	..	1	1	..	1	4	1	1	..	9
..	6	3	..	..	..	..	..	..	1	1	1	..	6
..	19	3	..	1	2	1	1	..	1	4	3	3	19
..	46	2	3	8	2	2	4	5	7	3	1	9	46
..	25	4	2	6	2	1	2	..	3	2	2	1	25
1	15	2	..	1	3	2	1	1	2	..	2	1	15
..	1	..	..	..	..	..	..	..	..	..	1	..	1
43	286	26	6	43	24	11	15	14	49	23	48	27	286
Birth Rate ..	15.51	16.32	34.69	24.45	14.90	26.40	15.38	32.57	22.26	32.97	22.10	26.12	
Inf. Mort. Rate	112	36	104	87	85	43	81	118	81	115	102	88	

TABLE III.—Nett Deaths

CAUSE OF DEATHS				AGES AT DEATH															YEARS AND OVER
				At all ages	under one year	1 and under 2 yrs.	2 and under 3 yrs.	3 and under 4 yrs.	4 and under 5 yrs.	5 and under 10 yrs.	10 and under 15 yrs.	15 and under 20 yrs.	20 and under 25 yrs.	25 and under 35 yrs.	35 and under 45 yrs.	45 and under 55 yrs.	55 and under 65 yrs.		
All Causes	Certified	..	..	1743	281	96	39	20	12	44	29	43	54	98	142	172	241	47
	Uncertified	..	..	14	5	..	..	..	1	..	..	..	..	..	1	1	3	
		M.	F.																
Enteric Fever	..	..	1	1	2	..	..	..	..	..	..	..	2	..	..	..	..	..
Smallpox	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	24	9	33	7	13	7	1	3	2	..	..	..	..	..	..	..
Scarlet Fever	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..
Whooping Cough	..	..	13	19	32	16	9	3	1	1	2	..	..	..	..	..	..	..
Diphtheria and Croup	..	..	..	4	4	..	..	1	..	..	2	..	..	..	..	..	1	..
Influenza	..	..	30	18	48	1	1	..	2	..	4	..	1	2	3	6	8	10
Erysipelas	..	..	2	2	4	..	..	..	..	..	..	..	..	..	..	2	1	..
Pulmonary Tuberculosis	..	..	86	69	155	1	3	2	..	6	8	16	23	32	29	16	13	..
Other Tuberculous Diseases	..	..	23	21	44	4	8	4	3	1	5	8	2	2	4	1	2	..
Cancer, Malignant Disease	..	..	83	58	141	..	..	..	..	..	..	..	1	4	13	20	50	5
Rheumatic Fever	..	..	7	13	20	..	..	..	..	..	2	1	1	2	4	2	4	..
Organic Heart Disease	..	..	110	108	218	..	..	..	..	..	1	4	1	2	8	21	46	13
Bronchitis	..	..	45	48	93	13	2	..	..	2	..	2	..	1	4	15	15	3
Pneumonia	..	..	126	52	178	20	17	5	3	1	6	2	4	10	12	26	21	3
„ Broncho	..	..	58	30	88	28	17	7	3	2	1	..	1	1	1	4	6	1
Other Respiratory Diseases	..	..	11	8	19	2	1	1	..	1	1	..	1	1	2	2	1	2
Diarrhoea and Enteritis	..	..	35	22	57	37	14	..	1	1	..	..	1	..	2	..	..	..
Appendicitis and Typhlitis	..	..	6	5	11	..	..	..	..	5	1	..	1	..	1	2	1	..
Cirrhosis of Liver	..	..	2	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..
Alcoholism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nephritis and Brights Disease	..	..	32	17	49	1	..	2	1	..	1	..	1	1	4	12	13	1
Puerperal Fever	..	..	..	4	4	..	..	..	..	..	..	..	..	4	..	..	..	..
Other Accidents and Diseases of Pregnancy	..	..	..	12	12	..	..	..	..	..	..	..	1	9	2	..	..	..
Congenital Debility and Malformation, including Premature Birth	..	..	58	29	87	87	..	..	..	..	..	..	..	..	..	..	..	..
Violent Deaths	..	..	51	10	61	..	1	3	..	1	2	2	6	4	6	10	10	5
Suicide	..	..	5	1	6	..	..	..	..	..	..	1	..	1	1	1	1	..
Other defined diseases	..	..	207	170	377	63	10	3	5	2	5	5	4	2	14	23	32	14
Diseases ill defined or unknown	..	..	1	3	4	1	..	..	..	..	..	..	..	..	1	1	1	..
Syphilis	..	..	4	1	5	5	..	..	..	..	..	..	..	..	..	..	..	..
Manslaughter	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..
Total	..	..	1022	735	1757	286	96	39	20	13	44	29	43	54	98	143	173	244

Ward Death Rates

Crude Death Rate	= 15.45.	Deaths under 1 year	= 286 or 16.28%	Birth Rate
Corrected Death Rate	= 14.26.	Deaths under 5 years	= 454 or 25.84%.	
Birth Rate	= 26.12.	Deaths over 65 years	= 475 or 27.03%.	Infant Mortality Rate
Inquests 96.	Certified by Coroner without Inquest	..	32	

Registered during the Year 1928.

Deaths in Public Institutions	NUMBER OF DEATHS AND DEATH RATE IN EACH WARD IN THE BOROUGH.											
	Ayrton	Acklam	Cannon	Cleveland	Exchange	Grove Hill	Linthorpe	Newport	Ormesby	St. Hilda's	Vulcan	Totals
4	1	..	1	..	..	..	..	..	..	..	..	2
1	..	..	..	..	..	..	..	..	..	1	..	1
..	..	2	4	2	..	1	1	11	2	6	4	33
..	..	1	..	..	..	..	..	..	..	..	..	1
3	1	..	6	2	1	1	2	5	3	7	4	32
4	..	..	..	..	..	1	1	1	1	..	..	4
11	6	3	5	4	3	5	2	4	4	8	4	48
..	..	..	..	1	1	1	..	..	..	1	..	4
55	21	9	16	17	6	13	7	16	12	23	15	155
35	2	4	4	2	3	3	3	7	1	8	7	44
54	14	7	12	17	9	14	13	13	13	23	6	141
3	1	2	1	2	2	..	4	1	5	..	2	20
76	20	13	19	23	12	26	17	18	19	32	19	218
12	6	5	7	7	8	4	12	15	7	17	5	93
59	13	9	27	13	8	10	13	17	7	46	15	178
19	2	2	6	7	3	4	9	24	5	15	11	88
4	2	..	2	6	2	..	3	2	..	1	1	19
10	3	..	11	5	..	2	3	14	3	14	2	57
15	..	2	2	2	..	1	..	2	1	..	1	11
2	..	..	..	..	..	1	..	..	1	..	..	2
..
17	..	4	8	..	3	9	13	6	1	1	4	49
6	..	..	1	..	2	1	..	..	..	..	..	4
10	1	1	..	3	..	2	1	2	..	2	..	12
20	7	5	13	5	4	6	7	14	7	5	14	87
48	4	6	7	1	2	8	2	12	5	9	5	61
..	..	..	..	..	1	1	..	..	..	..	4	6
259	39	27	41	24	21	46	34	40	29	49	27	377
1	1	..	..	2	..	..	..	..	1	..	..	4
4	2	..	1	..	..	..	..	1	..	1	..	5
..	..	..	..	..	..	1	..	..	..	..	..	1
732	146	102	194	145	91	161	147	225	127	269	150	1757
..	10.16	9.91	16.26	12.84	10.50	12.21	13.14	17.67	9.99	21.16	12.51	15.45
..	15.51	16.32	34.69	24.45	14.90	26.40	15.38	32.57	22.26	32.97	22.10	26.12
..	112	36	104	87	85	43	81	118	81	115	102	88

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE COUNTY BOROUGH
OF MIDDLESBROUGH.

REGISTRAR GENERAL'S RETURN, 1928.

CAUSES OF DEATH	Sex	All Ages	0—	1—	2—	5—	15—	25—	45—	65—	75—
ALL CAUSES	M	1,022	186	53	43	33	61	149	257	149	91
	F	735	101	43	27	36	37	94	161	128	108
1. Enteric Fever	M	1	..	..	..	..	1	..	..	..	..
	F	2	..	..	..	..	1	..	1	..	..
2. Small-pox	M	1	..	..	..	..	..	..	..	..	1
	F	..	..	..	..	..	..	..	..	..	..
3. Measles	M	23	6	8	8	1	..	..	..	..	..
	F	9	1	5	2	1	..	..	..	..	..
4. Scarlet Fever	M	..	..	..	..	..	..	..	..	..	..
	F	1	..	..	1	..	..	..	..	..	..
5. Whooping Cough	M	14	7	5	2	..	..	..	..	..	..
	F	18	9	4	4	1	..	..	..	..	..
6. Diphtheria	M	..	..	..	..	..	..	..	..	..	..
	F	4	..	..	1	2	..	..	1	..	..
7. Influenza	M	32	1	..	..	1	4	7	14	3	2
	F	17	..	1	2	3	..	2	5	3	1
8. Encephalitis Lethargica ..	M	1	..	..	..	..	..	..	1	..	..
	F	..	..	..	..	..	..	..	..	..	..
9. Meningococcal Meningitis	M	1	..	..	1	..	..	..	..	..	..
	F	1	..	..	1	..	..	..	..	..	..
10. Tuberculosis of	M	85	..	3	2	7	16	37	19	1	..
Respiratory System ..	F	71	1	1	..	7	23	24	11	2	2
11. Other Tuberculous	M	23	2	5	6	6	1	2	1	..	..
Diseases	F	17	2	3	1	5	3	3	..	..	..
12. Cancer, malignant disease	M	87	..	..	..	..	1	7	43	30	6
	F	61	..	..	..	..	..	11	28	18	4
13. Rheumatic Fever	M	3	..	..	..	..	1	2	..	..	..
	F	2	..	..	..	..	..	2	..	..	..
14. Diabetes	M	4	..	..	..	..	..	..	4	..	..
	F	6	..	..	..	..	..	2	3	1	..
15. Cerebral Haemorrhage, &c.	M	27	..	..	..	..	..	..	13	10	4
	F	38	..	..	..	..	..	..	17	14	7

Causes of Death at different periods of life in the County Borough of Middlesbrough—continued.

CAUSES OF DEATH	Sex	All Ages	0—	1—	2—	5—	15—	25—	45—	65—	75—
16. Heart Disease	M	128	..	..	..	1	5	13	45	39	25
	F	129	..	..	..	3	..	11	43	39	33
17. Arterio-sclerosis	M	57	..	..	..	..	..	1	16	24	16
	F	29	..	..	..	..	..	..	2	11	16
18. Bronchitis	M	33	9	1	1	..	1	1	10	6	4
	F	31	7	1	..	1	..	2	6	6	8
19. Pneumonia (all forms) ..	M	164	29	16	14	4	12	37	29	14	9
	F	74	14	16	7	3	4	6	8	11	5
20. Other Respiratory Diseases	M	12	3	..	1	2	1	2	2	1	..
	F	11	..	1	1	..	1	..	4	2	2
21. Ulcer of Stomach or Duodenum	M	11	..	..	..	..	..	6	4	1	..
	F	1	..	..	..	..	..	..	1	..	..
22. Diarrhoea, &c.	M	44	30	9	1	..	..	2	2	..	..
	F	23	13	6	1	..	1	1	..	..	1
23. Appendicitis and Typhlitis	M	4	..	..	..	1	..	1	2	..	..
	F	6	..	..	..	5	1	..	..	..	..
24. Cirrhosis of Liver	M	2	..	..	..	..	..	1	1	..	..
	F	..	..	..	..	..	..	..	..	..	..
25. Acute and Chronic Nephritis	M	27	..	..	1	1	1	3	11	9	1
	F	17	1	..	1	..	..	3	6	3	..
26. Puerperal Sepsis	F	4	..	..	..	..	..	4	..	..	..
27. Other Accidents and Diseases of Pregnancy and Parturition ..	F	7	..	..	..	..	..	7	..	..	..
28. Congenital Debility and Malformation, Premature Birth	M	70	68	1	1	..	..	..	..	..	..
	F	33	33	..	..	..	..	..	..	..	..
29. Suicide	M	9	..	..	..	..	2	2	3	1	1
	F	2	..	..	..	..	..	1	1	..	..
30. Other Deaths from Violence	M	44	..	..	2	3	9	14	11	3	2
	F	7	..	1	1	..	..	1	..	2	2
31. Other Defined Diseases ..	M	114	31	5	3	6	6	10	26	7	20
	F	112	20	4	4	5	3	14	22	16	24
32. Causes ill-defined or unknown	M	1	..	..	..	..	..	1	..	..	..
	F	2	..	..	..	..	..	..	2	..	..

TABLE V.—Notifications of Infectious Disease received during the Year 1928.

NOTIFIABLE DISEASE	NUMBER OF CASES NOTIFIED								Total Cases Notified in each Ward of the Borough										Cases Removed		
	At all ages	At Ages							Ayresome	Acklam	Cannon	Cleveland	Exchange	Grove Hill	Linthorpe	Newport	Ormesby	St. Hildas	Vulcan	West Lane Hospital	Hemlington Hospital
		Under 1 year	1 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 years and over													
Diphtheria ..	97	1	32	41	11	7	4	1	10	4	12	9	3	7	11	8	16	9	8	90	..
Erysipelas ..	84	2	..	6	13	19	34	10	17	3	10	4	3	5	7	8	14	7	6	1	..
Scarlet Fever ..	237	2	92	113	25	5	..	..	43	16	28	24	10	33	21	23	17	9	13	226	..
Small-pox ..	190	3	18	61	45	24	30	9	32	13	20	16	15	8	5	38	16	14	13	189	..
Pneumonia ..	398	22	85	77	62	76	57	19	70	15	36	28	16	26	23	86	15	54	29	..	..
Chickenpox ..	1115	74	422	603	14	2	..	..	94	185	133	112	59	166	92	83	78	90	113	..	..
Measles ..	2865	186	1643	1016	15	5	..	..	209	154	285	305	170	490	271	268	207	227	279	..	..
Pulmonary Tuberculosis:																					
Males ..	180	1	8	53	26	59	31	2	16	10	21	16	7	13	9	18	20	36	14	80	..
Females ..	157	1	9	43	41	44	17	2	17	12	20	21	8	10	9	20	12	16	12	69	..
Other forms of Tuberculosis:																					
Males ..	80	2	27	36	6	6	3	..	9	6	9	5	2	3	7	10	7	16	6	6	..
Females ..	54	3	12	25	8	5	1	..	4	5	7	6	3	4	5	11	3	3	3	7	..
Enteric Fever ..	6	..	..	..	4	1	1	..	3	..	2	..	..	..	..	..	1	..	..	5	..
Puerperal Fever ..	24	..	..	..	10	14	..	..	6	1	6	..	1	2	3	1	1	1	2	..	..
Puerperal Pyrexia ..	34	..	..	..	10	24	..	..	21	..	1	2	..	2	..	5	..	..	3	..	..
Ophthalmia Neonatorum ..	22	22	..	..	..	..	..	..	5	3	3	..	2	3	..	1	2	3	..	..	..
Encephalitis Lethargica ..	5	..	..	1	1	1	2	..	..	..	..	..	..	1	..	..	3	..	1	..	..
Cerebrospinal Fever ..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Influenzal Pneumonia ..	87	3	13	13	15	22	15	6	23	5	3	14	4	6	6	10	5	9	2	..	..
Totals ..	5636	322	2362	2088	306	314	195	49	579	433	596	562	303	779	469	590	417	494	504	484	189

NOTIFICATION OF BIRTHS ACT, 1907.

TABLE VI.—Summary of Births notified to the Medical Officer of Health during the year 1928.

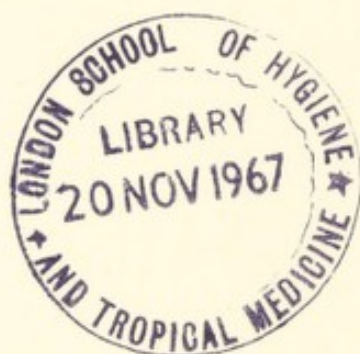
WARDS	January		February		March		April		May		June		July		August		Sept'ber		October		Nov'ber		Dec'ber		Total including Still births				Stillbirths		Total No. of Births notified excluding Stillbirths			
																																TOT.	M.	F.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
Ayresome ..	8	10	7	4	12	11	13	7	16	9	5	10	9	8	12	8	9	12	12	12	8	10	7	16	118	117	235	6	6	223				
Acklam ..	10	3	6	9	8	7	12	8	8	9	9	3	10	10	6	7	6	6	9	3	10	4	6	6	100	75	175	3	4	168				
Cannon ..	23	24	17	21	26	26	19	14	19	23	13	18	16	11	18	17	15	12	17	21	16	10	25	13	224	210	434	11	9	414				
Cleveland ..	13	19	10	11	15	6	15	12	11	11	12	8	15	6	10	10	14	11	15	18	8	11	13	12	151	135	286	4	6	276				
Exchange ..	6	7	9	7	4	9	4	4	7	4	6	4	9	6	5	4	5	4	8	2	5	3	6	5	74	59	133	2	2	129				
Grove Hill ..	18	14	16	22	15	10	22	21	12	15	14	8	20	11	9	15	11	19	12	23	11	9	20	12	180	179	359	5	6	348				
Linthorpe ..	2	5	8	7	9	11	9	3	7	12	6	9	8	6	13	4	11	8	8	8	4	9	3	7	88	89	177	3	2	172				
Newport ..	20	28	19	18	20	20	20	7	17	19	25	10	20	13	15	13	18	21	11	15	24	18	25	12	234	194	428	6	7	415				
Ormesby ..	14	11	15	12	14	16	8	17	13	19	13	9	14	15	6	9	12	14	7	11	12	9	15	6	143	148	291	4	4	283				
St. Hildas ..	20	17	21	23	11	19	21	20	19	19	20	20	13	17	24	13	21	19	17	6	17	26	17	16	221	215	436	11	6	419				
Vulcan ..	17	11	16	3	14	18	11	13	11	10	7	6	12	12	11	8	16	6	12	8	16	12	19	8	162	115	277	9	3	265				
Non-Residents	2	2	3	1	2	..	2	1	1	1	3	4	..	1	1	1	2	4	..	4	1	3	2	1	19	23	42	4	3	35				
TOTALS	153	151	147	138	150	153	156	127	141	151	133	109	146	116	130	109	140	136	128	131	132	124	158	114	1714	1559	3273	68	58	3147				
Births notified by :																																		
Doctors ..	61	61	61	61	60	68	68	66	66	52	52	52	52	52	36	66	66	54	54	47	65	688	688	688	688	688	688	688	688	688	..			
Reg. Midwives	243	243	224	224	243	215	226	226	226	190	190	190	210	210	203	210	210	205	205	209	206	2584	2584	2584	2584	2584	2584	2584	2584	2584	..			
Other Women, etc.	1	1	1	1	1	1	1	1	1	..			
TOTALS ..	304	285	285	285	303	283	292	292	292	242	242	242	262	262	239	276	276	259	259	256	272	3273	3273	3273	3273	3273	3273	3273	126	126	..			

TABLE VII.—Birth-rate, Death-rate, and Analysis of Mortality during the year 1928.

(Provisional figures. The rates for England and Wales, have been calculated on a population estimated to the middle of 1928, but those for the towns have been calculated on populations estimated to the middle of 1927. The mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards London and the groups of towns.)

England and Wales, <i>not only to crowns as regards London and Great Towns</i>																	
	BIRTH-RATE PER 1,000 TOTAL POPULATION		ANNUAL DEATH-RATE PER 1,000 POPULATION.									RATE PER 1,000 BIRTHS.		PERCENTAGE OF TOTAL DEATHS.			
	Live Births	Still-births	All Causes	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Violence	Diarrhoea and Enteritis (under Two years)	Total Deaths under One year	Causes of Death Registered by Medical Practitioners	Inquest Cases	Certified by Coroner after P.M. No Inquest.	Uncertified Causes of Death
England and Wales	16.7	0.70	11.7	0.01	0.00	0.11	0.01	0.07	0.06	0.19	0.53	7.0	65	90.9	6.7	1.4	1.0
107 County Boroughs and Great Towns, including London ..	16.9	0.70	11.6	0.01	0.00	0.15	0.02	0.09	0.09	0.17	0.48	9.6	70	91.0	6.5	1.9	0.6
166 Smaller Towns (1921 Adjusted Populations 20,000-50,000) ..	16.6	0.73	10.6	0.01	0.00	0.08	0.01	0.06	0.08	0.21	0.41	4.8	60	92.6	5.7	0.5	1.2
London	15.9	0.53	11.6	0.01	0.00	0.30	0.02	0.09	0.09	0.13	0.55	10.2	67	88.7	7.6	3.7	0.0
Middlesbrough	26.12	0.95	14.26	0.01	0.00	0.25	0.00	0.24	0.03	0.36	0.51	0.39	88	91.9	5.5	1.8	0.8

ABSTRACT OF MEDICAL OFFICER OF HEALTH REPORTS FROM 1898-1928



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