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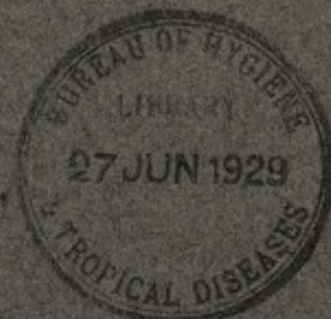


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COUNTY BOROUGH



OF SOUTHPORT.



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# REPORT

UPON THE

## Health and Sanitary Condition

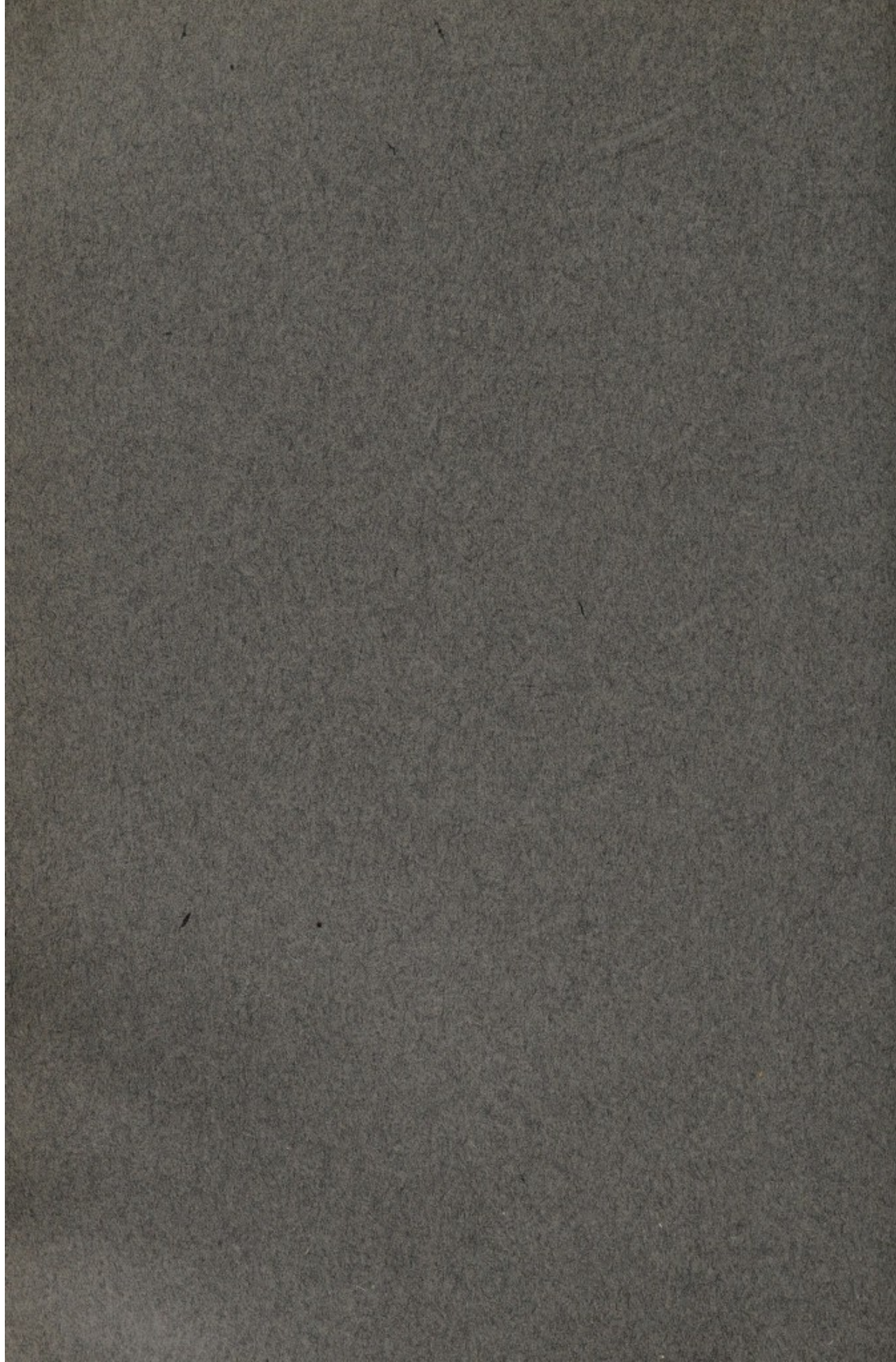
OF THE

### County Borough of Southport,

For the Year 1928.

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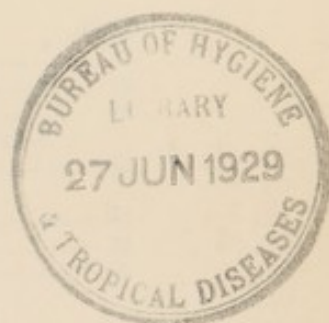




COUNTY BOROUGH



OF SOUTHPORT.



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UPON THE

## Health and Sanitary Condition

OF THE


### County Borough of Southport,

### For the Year 1928.

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*C. Tinling & Co. Ltd., Liverpool, London and Prescott.*





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## THE HEALTH COMMITTEE.

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THE WORSHIPFUL THE MAYOR

(Councillor J. BROOK, J.P.).

*Chairman :* Councillor J. G. WILKINSON, J.P.

*Vice-Chairman :* Councillor Dr. G. R. ANDERSON, M.B.E., J.P.

Ald. C. AVELING, J.P.

Ald. F. HARLING, J.P.

Ald. Dr. A. W. LIMONT, J.P.

Ald. W. H. M. MAWDSLEY, J.P.

Ald. W. H. POTTS, J.P.

Ald. A. TOMLINSON, J.P.

Counc. J. R. BILLINGTON.

Counc. T. BALL.

Counc. Dr. H. COATES.

Counc. REV. D. R. DAVIES.

Counc. W. H. DENT.

Counc. Miss HARTLEY, J.P.

Counc. G. H. HIBBOTT, J.P.

Counc. Dr. E. W. LEWIS.

Counc. A. PEPLOE, O.B.E.

Counc. Miss RIMMER, J.P.

Counc. T. SCHOLES.

Counc. A. O. SMITH.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE  
OF THE COUNTY BOROUGH OF SOUTHPORT.

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MR. CHAIRMAN, LADIES, AND GENTLEMEN,

I beg to submit my report on the sanitary conditions of the Borough during the year 1928. The statistics adduced speak for themselves.

With each succeeding year further progress in the conception of public health services is made. This progress cannot be realised in practice without careful organisation and greater demand on the time and skill of the staff concerned.

*Tuberculosis Department.* It has been possible to examine more "contacts"—this is an important method of discovering cases at a very early stage; and in this respect the X-ray examination is invaluable. The X-ray Department gives very great satisfaction; the results are excellent and the value of this department is such that one now wonders how it was possible to work without it. A larger number of doubtful cases are being brought to the Dispensary for opinion by the general practitioners, and I venture to say that they are not disappointed in the efforts of the staff to co-operate with them.

*The Artificial Sunlight Clinic* has been carried on now for over twelve months. The cases which are included in this report are those referred to the Clinic from the Tuberculosis, School Medical, and Child Welfare Departments. The Clinic has given satisfaction, and although it is difficult to assay exactly the amount of benefit received, there is an unquestionable general improvement of health as found on examination and by the reports of the parents. Five cases of lupus are under treatment and although benefit has been derived we are unable to give the intensive local application of the ultra-violet light which is called for in these cases. In order to do this it would be necessary to expend £55 on an additional lamp.



More cases were admitted to the Maternity Hospital. The results continue to be excellent, and the Ante-natal work conducted in connection with the department is of the greatest value to the mothers. I rely very largely on the extension of this service for a reduction of the rate of maternal mortality which prevails throughout the country; this death rate can undoubtedly be reduced by early and exact knowledge of each patient's condition. Miss Hartley has already received your acknowledgment of her munificent gift of a new Maternity Hospital, but the appreciation of those who are immediately engaged in the work, either clinically or in its organisation, is very sincerely proffered. The present hospital has fully proved the value of the scheme, and in a modern *ad hoc* building perfectly equipped the work must go on from strength to strength.

I remain,

Faithfully yours,

GEO. C. BARNES.

May, 1929.

# **PUBLIC HEALTH OFFICERS.**

Medical Officer & School Medical Officer	G. C. Barnes, D.P.H.	
Deputy „ „	W. E. FitzGerald, D.P.H.	
Assistant Medical Officer of Health ..	Dorothy E. Mathews, D.P.H.	
V.D. Medical Officer & Dermatologist ..	Dr. H. Bardsley, M.R.C.S., L.R.C.P.	
Maternity Ward Obstetrician-in-Charge	Dr. A. S. Garden, M.D. Aberdeen ; L.M. Dublin.	
Hon. Consultant Obstetrician .. ..	Dr. Leith Murray, M.D., M.B., Ch.B.	
Consultant Tuberculosis Officer .. ..	Dr. John Hay, M.D., F.R.C.P.	
Nose and Throat Specialist .. ..	Dr. C. Yorke, M.D., F.R.C.S.Eng.	
Veterinary Surgeon .. ..	H. G. Hewetson, M.R.C.V.S.	
Analyst .. ..	H. Davies, M.A., B.Sc., F.I.C.	
Dentist .. ..	J. H. Highton, L.D.S.	Jointly with Education Committee
Do. .. ..	W. Martland, L.D.S.	
Dental Mechanic .. ..	R. Sanderson.	
Chief Sanitary Inspector .. ..	J. Peet (C).	
District Sanitary Inspector .. ..	W. Halsall.	
Do. .. ..	K. Aspinwall (C.).	
Do. .. ..	S. J. Wilde (C.).	
Do. .. ..	G. Huggins (C.).	
Food Inspector .. ..	P. Wright (C.).	
Shops Inspector .. ..	G. Hadley (C.).	
Ambulance Attendant and Infectious Disease Enquiry Officer .. ..	H. Magee.	
Ambulance Driver .. ..	A. W. Armitage.	
Senior Clerk .. ..	H. Griffiths.	
Clerk .. ..	Miss E. Wilkinson.	
Chief Health Visitor .. ..	„ V. M. Willder (A.B.C.)	Jointly with Education Committee
Assistant Health Visitor .. ..	„ A. Bullen (B.C.)	
Do. .. ..	„ E. Palmer (A.B.C.)	
Do. .. ..	„ M. Lewis (A.B.C.)	
Do. .. ..	„ A. Probert (A.B.C.)	
Do. .. ..	„ G. M. Shenton (A.B.)	
Do. .. ..	Mrs. E. Whelan (A.B.C.)	
Do. .. ..	„ E. Dearden	
Dentist's Assistant .. ..	Miss H. Rimmer.	
Clerk .. ..	„ I. Lund.	
Do. .. ..	„ D. Illingworth.	
Do. .. ..	„ G. Singleton.	
Caretaker, 2, Church Street .. ..	T. Wright.	
Do. Slaughterhouses .. ..	F. Beaton.	
Victoria Baths	Superintendent	S. Hodson.
Canning Road Baths		
Compton Road Baths		

A.—Trained Nurse. B.—Central Midwives Board. C.—Royal Sanitary Inst.



## NEW HALL HOSPITAL.

Matron	..	..	..	..	Miss S. Coulter.
Home Sister	..	..	..	..	Miss Elsie Fletcher.
Night Sister	..	..	..	..	Miss Mary McCrory.
Sanatorium Sister..	..	..	..	..	Miss Annie Daley.
Engineer	..	..	..	..	T. Wolfenden.
Porter	..	..	..	..	J. Seddon.

# REPORT, 1928.

Population at Census, 1911.....	69,648
Do. do. 1921 .....	71,900
Do. (estimated by Reg. Genl.), middle of 1928 ....	79,290
Area of Borough (Excluding Foreshore, 14,196 acres), acres .....	8,804
	1923 1924 1925 1926 1927 1928
Birth Rate.....	13·76 12·90 13·10 11·90 12·18 11·54
Academic Corrected Death Rate ..	— — 10·70 10·12 11·50 11·17
Death Rate, Zymotic Diseases ....	0·26 0·15 0·14 0·23 0·08 0·20
Infantile Death Rate .....	65 63 61 62·5 48 75

(For various other rates of previous years, see Table VIII, and Text *infra*.)

## POPULATION.

The number of New Houses erected and completed during the year was about 300. The number of children attending Elementary Schools has at last shewn a definite increase during the last four years of about 230.

The Registrar General's estimate for the middle of 1927 was 78,670, and for the middle of 1928 was 79,290, which is adopted as a basis for the rates for 1928.

## SOCIAL CONDITIONS.

The population is almost entirely residential, with the necessary ancillary occupations. There is one important motor works.

Poor Law Relief :—

Amount of Relief  
granted during  
1928.  
£10,176

No. of Persons in  
receipt of Out-door Relief  
Jan. 1, 1929.  
779

Southport Infirmary :—

	1924	1925	1926	1927	1928
In-Patients—Total Treated.....	1,334	1,468	1,336	1,562	1,648
Out-Patients— do. ....	3,175	3,425	3,682	3,649	4,723

Further assistance is given by the Southport and Birkdale Provident Society, and by the Southport and Birkdale District Nursing Society.



# Vital Statistics.

## BIRTH-RATE.

The "Corrected" Births numbered 915 (43 less than last year) of which 458 were males and 457 females. The resulting Birth-rate is 11.54.

## INFANTILE MORTALITY.

Year	Total Births	Legitimate Births	Illegitimate Births	Total Deaths	Total Rates	Deaths Legitimate	Rate per 1000	Deaths Illegitimate	Rate per 1000
1921	1106	1039	67	77	70	67	64	10	109
1922	1028	965	63	58	56	53	55	5	79
1923	996	937	59	65	65	55	59	10	169
1924	934	876	58	59	63	51	58	8	188
1925	973	917	56	59	61	54	59	5	89
1926	928	863	65	58	62.5	52	60	6	92
1927	958	891	67	46	48	41	46	5	75
1928	915	858	57	69	75	61	71	8	140

The increase in the Infantile Death Rate is due chiefly to more deaths in the first week of life which were mostly unavoidable.

## DEATH-RATE.

The Death-rate for 1928, after deduction of non-residents registered in the District and the addition of residents not registered in the District. 13.17 per 1,000 per annum, has been attained by applying the number of Deaths, 1,044, to the Registrar-General's estimate of the population for the middle of the year, namely 79,290.

The number of deaths actually registered in the Borough and the Isolation Hospitals was 1,002, of which 429 were males and 573 females. These figures give a gross Death-rate of 12.64 per 1,000 of the population.

If, however, from the above 1,002 deaths are deducted 71 deaths of visitors who came into the town in a precarious state of health, and died after only a short stay here, there remain 931 deaths; from which, by calculation, a "local" death-rate of 11.74 per 1,000 is obtained.

The deaths of persons over 65 numbered 544, being 52 per cent. of the total deaths. The death-rate, 13.17, may be compared with the average death-rate 12.99 for the five years 1924 to 1928 inclusive. The deaths from Organic Heart Disease and Respiratory Diseases show no striking change. I still feel that the Population is somewhat underestimated.

With respect to the death-rate, 13·17, for 1928, as found above, it should be noted that correction has only been made by deduction of deaths of non-residents registered in this district and the addition of deaths of residents registered in other districts.

The Registrar-General supplied a Factor for Correction, ·848, for Age and Sex, and on applying this to the above rate, an academically corrected death-rate of 11·17 is attained.

Considerably more than half of the deaths occurred at the age of 65 and upwards, and considerably more than a quarter (27·7%) at 75 and upwards.

In estimating the healthiness or otherwise of a given population, even the academic death-rate is insufficient of itself; at least two other rates must be borne in mind for the consideration of the problem, namely, the Infantile Death-rate and the Zymotic Death-rate.

#### **RATIO OF DEATHS IN EACH OF THE VARIOUS AGE GROUPS TO TOTAL DEATHS (100).**

	Under 1.	1-2	2-5	5-15	15-25	25-45	45-65	65 and Upwards.
1921.....	8·4	1·6	1·7	1·1	3·8	9·3	25·3	48·8
1922.....	5·9	1·1	1·8	1·2	3·9	8·6	27·4	50·1
1923.....	6·7	2·7	1·3	1·2	2·4	8·7	27·4	49·6
1924.....	5·9	2·0	1·5	1·0	2·8	10·0	23·9	52·9
1925.....	6·3	1·7	1·3	1·2	3·0	8·3	25·9	52·8
1926.....	6·2	0·7	1·2	1·4	2·1	9·1	25·7	53·6
1927.....	4·3	0·3	1·1	1·1	2·2	8·3	28·3	54·4
1928.....	6·6	1·7	1·5	1·0	2·4	7·2	27·5	52·1

#### **ZYMOTIC DEATH-RATE.**

Sixteen deaths, due respectively to Diphtheria (1), Measles (2), Whooping Cough (9), and Diarrhœa (4) gave a corrected Zymotic Death-rate of 0·20 per 1,000. This is a very satisfactory Zymotic Death-rate. Probably some, if not all, of the cases of Infantile Diarrhœa were not of an epidemic nature.



## CANCER, MALIGNANT DISEASE.

The number of deaths was 136—about the usual incidence. One in seven of all deaths of persons 25 years and upwards were due to this condition.

In a population with an age constitution such as ours the rate must necessarily remain apparently high. The deaths are confined practically to the middle aged and the aged.

## HEART DISEASE DEATHS.

	Totals	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 Up
Valvular Disease .....	60	—	—	1	3	14	18	18	6	—	—
Endocarditis .....	1	—	—	—	—	—	—	1	—	—	—
Cardiac Asthma.....	2	—	—	—	—	—	2	—	—	—	—
Myocardial Degeneration	18	—	—	—	—	3	3	6	5	1	—
Myocarditis .....	27	—	—	1	—	—	6	9	9	2	—
Cardiac Degeneration...	5	—	—	—	—	1	—	3	1	—	—
Fatty Degeneration ....	2	—	—	—	—	—	—	2	—	—	—
Heart Disease .....	8	—	—	1	—	3	3	1	—	—	—
Dilatation.....	3	—	—	—	—	—	1	—	2	—	—
Myocardial Disease.....	4	—	—	—	—	1	1	2	—	—	—
Chronic Carditis .....	5	—	—	—	—	2	2	1	—	—	—
Totals .....	135	—	—	3	3	24	36	43	23	3	—

Less than half of these were due to Valvular Disease. In the case of many of the Patients it would seem likely to me that their hearts instead of being bad have been of more than ordinary excellence.

TABLE X.—**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.)

	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.	Certified by Registered Medical Practitioners.	Inquest Cases	Certified after P.M. Coroner	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	
156* 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	10.6	67	88.7	7.6	3.7	0.0	
Southport .....	11.54	0.44	11.17	0.00	0.00	0.03	0.00	0.13	0.01	0.37	0.26	4.4	69	92.05	4.02	0.38	3.54	

\* By the union of Morecombe M.B. and Heysham U.D. on the 1st October, 1928, the number of Smaller Towns is increased to 156.



# General Housing Conditions.

## HOUSING ACCOMMODATION.

Three hundred Houses have been erected by private enterprise during the year. None by Corporation.

The cost of labour and materials, especially the latter, both for construction of new and repair of old houses, is still so high that in the presence of restriction on rent it is difficult to get repairs executed.

## COMMON LODGING HOUSES.

There are five registered Common Lodging Houses, the same number as last year. The conditions generally inside and out are satisfactory.

# Public Baths.

## VICTORIA BATHS.

These baths, situated on the Promenade are acknowledged to be the most up to date in the North of England. They comprise three plunge baths containing sea water filtered by the most modern mechanical filters. A sample of the water taken under crucial conditions showed a state of purity which is altogether exceptional.

During the winter months (November to March) the 1st class plunge is open each week-day for mixed or Family bathing, and is heated to a suitable temperature.

The number of bathers during the year 1928 was 126,054.

There are also 45 Private slipper baths, a complete suite of 24 being allotted for Females, and 21 for Males. Each bath is supplied with hot and cold sea or fresh water. The baths are thoroughly cleansed after every Bather. An up to date water-softening plant is installed giving bathers the advantage of softened fresh water. Number of bathers using the slipper baths during the year 1928, 18,153.

The Turkish baths are fitted with every comfort; cooling rooms and lounge are situated on the ground floor; the hot rooms (3), Vapour, massage rooms, and showers are fixed in the basement. The heating installed in connection with these baths is of the latest device, hot air being driven into the hot rooms by electricity, the old method of coke furnaces being entirely dispensed with. (No. of bathers 3,711.)

## CANNING ROAD BATHS.

Opened in 1903 in a working class district, these baths serve a very useful purpose; for the small sum of 2d. a private slipper bath may be taken, 1d. extra is charged for either soap or towel. An open air bath is provided free for children up to 16 years of age. 20,000 Children have taken advantage of this bath in one season.

## COMPTON ROAD BATHS.

These baths opened in 1926, are also situated in a working class district and contain 10 slipper baths and one open air bath. The same charges and conditions are in force as at Canning Road baths. 6,000 persons used the baths during the season.

## SEA BATHING LAKE, PRINCES PARK.

The water of the Sea Bathing Lake, Princes Park, was submitted to a most critical independent examination in order to determine its bacteriological content.

The samples were taken on a Monday morning of August after a hot and extremely busy week-end. The result showed a most gratifying paucity of organisms of any kind; in fact the content displayed was comparable with that of drinking waters except the purest. But this finding, which is in accordance with my expectations, is nevertheless exceedingly satisfactory and justifies the most complete confidence in further prospective users of the bath.

**Comparison of the bacteriological content is challenged with that of any other bath.**



# Infectious Diseases.

DISEASE. Year	NOTIFICATIONS.					DEATHS.					CASE MORTALITY.				
	1924	1925	1926	1927	1928	1924	1925	1926	1927	1928	1924	1925	1926	1927	1928
Enteric Fever .....	16	4	5	7	1	1	—	1	1	—	6.25	—	20.0	14.3	—
Scarlet Fever .....	107	132	132	144	123	—	—	1	—	—	—	—	0.76	—	—
Diphtheria .....	35	44	35	49	71	—	2	1	—	1	—	4.54	2.86	—	1.41
Measles* .....	288	672	887	401	674	2	3	5	2	2	0.69	0.45	0.56	0.50	0.30
Whooping Cough* .....	292	240	418	118	310	4	2	5	3	9	1.37	0.83	1.03	2.54	2.90

\* Only first case in a house in two months is notifiable.

## INCIDENCE RATE PER 1,000 POPULATION.

	Small-pox	Scarlet Fever	Diphtheria	Enteric	Puerperal	Puerperal Pyrexia	Erysipelas
England and Wales .....	0.32	2.61	1.55	0.09	0.06	0.14	0.42
Southport .....	0.00	1.55	0.89	0.01	0.00	0.08	0.36

## WHOOPIING COUGH.

Cases—310.

Deaths—9.

Mild type.

## MEASLES.

Cases—674.

Deaths—2.

Mild type.

## VENEREAL DISEASE.

		Out-Patient Attendances.		In-Patient Days.
1921	....	9,188	....	2,323
1922	....	11,130	....	2,144
1923	....	8,883	....	1,327
1924	....	8,436	....	1,314
1925	....	9,506	....	1,476
1926	....	12,871	....	1,976
1927	....	13,299	....	2,456
1928	....	12,320	....	2,054

## Venereal Disease.

The work of the Department has made steady progress, the total number of new cases being 314 as compared with 280 during the previous year.

The in-patient days show a steady decrease, 2,054 as compared with 2,456 in 1927.

During 1928 there have been seven births of patients suffering from V.D. or having previously had ante-natal treatment.

The total number of attendances in the out-patient Department in 1928 are 12,320 compared with 13,299 in 1927. The proportionate decrease in out-patients' attendances to the increase of new cases is due to the fact that this year there have been many more new cases of Syphilis compared with the cases in 1927.

As regards the treatment of Congenital V.D., 45 children under 5 were admitted, 30 being babies of 1 year.

All cases of Ophthalmia Neonatorum have progressed favourably and there has not been one case of Blindness.

It is my opinion that we are not getting the proper proportion of Gonorrhœa cases (acute and chronic) under treatment. There has been a considerable falling off in the attendances of these cases this year and I think that much can be done in the future, as has been done in the past, by Propaganda, such as lectures and the like. It has been my experience that in the months following Health Weeks many cases of old and latent Venereal Conditions have been brought to light.

Apart from the ordinary activities of the Department a great deal of extra work has been thrown upon the staff by the treatment of Skin Diseases of Non-Venereal Origin.

With regard to the children suffering severely from skin disease such as Impetigo, Eczema, and Scabies, the results have been highly satisfactory and the admission to hospital produces a much more rapid and effectual cure.

My thanks are due to the Assistant Medical Officers, Sister in Charge, Orderlies and Nursing Staff who continue to show keen enthusiasm and interest; this goes a long way to obtain a regular and continued attendance of both the out-Patients and in-Patients, the only means whereby we can hope to combat these diseases.

H. BARDSLEY, M.R.C.S.,

Director of the Skin and Genito-Urinary Department.



## Vaccination.

Appended is a Table showing the percentage of unvaccinated infants found during Medical Inspection of School Children.

		Boys.		Girls.
1909	.....	13.0	.....	14.1
1910	.....	8.3	.....	9.1
1911	.....	4.2	.....	4.7
1912	.....	23.9	.....	21.8
1913	.....	44.0	.....	45.4
1914	.....	50.8	.....	55.7
1915	.....	53.6	.....	49.6
1916	.....	55.6	.....	50.4
1917	.....	60.2	.....	57.5
1918	.....	63.4	.....	63.6
1919	.....	68.8	.....	67.1
1920	.....	68.5	.....	66.7
1921	.....	73.0	.....	68.4
1922	.....	69.0	.....	73.6
1923	.....	69.0	.....	68.0
1924	.....	76.4	.....	72.8
1925	.....	72.9	.....	74.6
1926	.....	77.2	.....	75.5
1927	.....	35.4	.....	38.0
1928	.....	57.6	.....	61.3

## Insurance Medical Services.

### HEALTH EDUCATION BY INSURANCE COMMITTEES.

The National Health Insurance Act, 1924, Section 50, enacts that Insurance Committees shall make such provision for the giving of lectures and the publication of information on questions relating to health as they think necessary or desirable, and may if they think fit for that purpose make arrangements with local Education Authorities, Universities, and other Institutions. It will be observed this instruction is mandatory.

When Sir George Newman was here recently he strongly urged the desirability of pursuing this branch of Public Health work. In other Centres the following things have already been done :—

- (a) Public lectures, often accompanied by exhibition of cinematograph films or lantern slides (21 Committees).
- (b) Arrangement of lectures by Insurance Practitioners to persons on their panel lists (12 Committees).
- (c) Distribution of leaflets, pamphlets, blotters, etc., on the care of health in such matters as personal hygiene, eating, drinking, fresh air, etc., and publication of posters (42 Committees).
- (d) Participation in Health Week Campaigns, Exhibitions, etc., (25 Committees).

Sir George Newman further urged the desirability of giving lectures to the Panel Doctors themselves.

Such methods are amongst those that might well be adopted to diffuse the knowledge of how to **keep** the health of the healthy members of the population :—"to equip every citizen with knowledge of the ways in which the laws of nature may be observed and respected even in an excessively urbanized environment."

## Tuberculosis Report.

### TUBERCULOSIS.

One hundred and fourteen fresh cases were notified during 1928. Of these eighty-one were cases of Pulmonary Tuberculosis and thirty-three of non-pulmonary disease. Approximately 70% of these cases receive treatment at the Tuberculosis Dispensary. This percentage is on the whole satisfactory. Many cases are brought for examination and consultation before the disease is notified. No effort is spared to encourage this. Our old bugbear of failure to obtain an early diagnosis is still with us, but the examination of doubtful cases has resulted in the discovery of at least a certain number of early cases.

The results obtained at the Sanatorium are satisfactory and are not inferior to those achieved at larger Institutions. The patients are as soon as possible given exercise of increasing amount and later take part in domestic work. A considerable amount of gardening work has been done during the past year :—weeding, delving, raking, grass sowing, grass cutting with small mower and scythe, clipping edges, etc., are the kinds of work which have been engaged in.

The new X-ray Department has proved to be of great service. As a help in diagnosis, the distinction between Pulmonary Tuberculosis and other chest diseases, the determination of the extent of the disease, and as a means of determining the progress of a case, it has been of the greatest assistance. The plant is easily worked and the photographs give good detail. Two cases at present are undergoing Artificial Pneumo-thorax treatment; the results are satisfactory, and without recourse to this method the outlook in both cases would have been very grave indeed.



## ARTIFICIAL LIGHT TREATMENT.

The lamps installed at Church Street are of the long-flame carbon-arc type; the carbons are cored with metal so that when measured by the Spectroscope, the spectrum, similar to that of the sun, gives an intensity of ultra-violet rays only found in Nature on a bright clear day. A comparison with natural sunlight made in January showed that the sun gave long wave ultra-violet rays of poor intensity down to about 3,500 Angstrom Units. The Clinic lamps showed intense bands between 4,000 and 3,000, another intense band at 2,500 A.U., and readings as low as 2,100 A.U. could be obtained though the intensity was very low and tailed off between 2,500 and 2,100 A.U. (Rays are measured by Angstrom Units.)

Site of Disease.	No.	Average Duration of Treatment.	Other Treatment.	Condition at end of year.
Elbow Joint... ..	1	5 months	Sanatorium	Arrested.
CERVICAL GLANDS—				
Open ... ..	11	6 months	Nil	Arrested.
Closed ... ..	5	3 months	Nil	Improved.
Skin (Lupus) ... ..	4	10 months	Nil	Improved.
Femur (Periostitis) ...	1	1 month	Nil	Arrested.
Abdominal Glands ...	1	8 months	Nil	Arrested.
Incipient Pulmonary T.B. ...	4	5 months	Nil	No improvement.
Bazin's Disease ...	1	8 months	Sanatorium	No lasting improvement.

The case of Tuberculosis of the elbow joint appeared to gain great benefit from local irradiations with the lamps. Pain was relieved and the œdema round the joint reduced. The patient was also undergoing Sanatorium treatment, and movement of the elbow was limited by a splint during the time she was attending the light clinic, but there is no doubt that the irradiation was a valuable help.

Closed cases of cervical adenitis improved in general condition and in some cases the glands at the end of the course were definitely reduced in size. In two or three cases surgical interference had to be resorted to on account of the softening of a gland with resulting suppuration but treatment was continued after the operation for removal or drainage of the gland.

Open cases, i.e. cases with discharging sinuses, have benefited greatly and in no case has the sinus failed to close.

The cases of lupus have very definitely improved but with the carbon arc irradiation alone no complete cure has been effected. Local treatment with the Kromayer lamp is indicated to deal with the active edge of the lupus patch.

Children who have been classified as cases of incipient Tuberculosis have not benefited by treatment and we do not now recommend such cases for general irradiation. The home conditions are usually such that any benefit which may be derived is rapidly outweighed, and probably increased metabolism caused by the light treatment is not compensated for at home. In some of these cases there was loss of weight.

The case of Bazin's disease was treated for eight months and it is impossible to say that any lasting benefit ensued.

Cases notified :—

	Pulmonary.	Non-Pulmonary.	Total.
Males .....	38 .....	15 .....	53
Females .....	43 .....	18 .....	61
	81	33	114

Duplicate notifications excluded.

### DISPENSARY.

Tuberculosis cases : 1st visits.....	129
Re-visits.....	1,558
Contacts visited.....	3,826
Contacts examined by Tuberculosis Officer : 1st visits.....	59
Re-visits.....	10
Clinical examinations by Tuberculosis Officer :	
1st examinations .....	114
Re-examinations .....	495
Clinical examinations by Consulting Officer.....	47
Patients seen by Health Visitor at Dispensary .....	412
Hours in Dispensary.....	280
Total visits to Dispensary .....	1,068
Individual Patients attending Dispensary .....	303
„      „      „      „      „ .....	69



# NEW CASES AND MORTALITY DURING 1928.

Age Periods.				New Cases.				Deaths			
				Pulm'ry. M.	Non-Pulm'ry. F.	Pulm'ry. M.	Non-Pulm'ry. F.	Pulm'ry. M.	Non-Pulm'ry. F.	Pulm'ry. M.	Non-Pulm'ry. F.
0	..	..	..	—	—	—	1	—	—	—	3
1	..	..	..	1	—	6	2	—	—	3	1
5	..	..	..	1	1	4	7	—	1	—	—
10	..	..	..	1	2	—	3	—	1	—	—
15	..	..	..	2	5	—	—	—	2	—	1
20	..	..	..	3	8	3	1	1	4	1	—
25	..	..	..	8	18	1	2	4	1	1	—
35	..	..	..	6	3	—	—	3	4	—	—
45	..	..	..	12	3	1	—	7	—	—	—
55	..	..	..	2	2	—	1	3	5	—	—
65 and upwards	..	..	..	2	1	—	1	2	2	—	—
Totals				38	43	15	18	20	20	5	5

Return showing the work of the Dispensary (or Dispensaries) during the year 1928.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1.—NEW CASES examined during the year (excluding contacts):												
(a) Definitely tuberculous ...	25	31	2	1	2	2	7	9	27	33	9	10 = 79
(b) Doubtfully tuberculous...	1	2	1	1	—	—	—	—	1	2	1	1 = 5
(c) Non-tuberculous.....	1	—	—	—	—	1	—	—	1	1	—	— = 2
												86
2.—CONTACTS examined during the year:—												
(a) Definitely tuberculous ...	—	—	—	—	—	—	—	—	—	—	—	—
(b) Doubtfully tuberculous...	6	11	13	5	2	1	—	—	8	12	13	5 = 38
(c) Non-tuberculous.....	9	18	11	16	—	—	—	2	9	18	11	18 = 56
												94
3.—CASES written off the Dispensary Register as												
(a) Cured .....	—	3	—	1	—	—	—	—	—	3	—	1 = 4
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) .....	11	19	13	17	—	1	—	—	11	20	13	17 = 61
												65
4.—NUMBER OF PERSONS on Dispensary Register on December 31st:—												
(a) Diagnosis completed .....	103	86	13	10	13	17	39	25	116	103	52	35 = 306
(b) Diagnosis not completed	6	12	23	9	2	—	—	2	8	12	23	11 = 54
												360
1. Number of persons on Dispensary Register on January 1st ...				319					9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensary ...			9
2. Number of patients transferred from other areas and of "lost sight of" cases returned ...				10					10. Number of consultations with medical practitioners:—			
									(a) At Homes of Applicants ...			23
									(b) Otherwise ...			45
3. Number of patients transferred to other areas and cases "lost sight of"				52					11. Number of other visits by Tuberculosis Officers to Homes ...			—
4. Died during the year ...				32					12. Number of visits by Nurses or Health Visitors to Homes for Dispensary Purposes ...			965 + 322
5. Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months ...				43					13. Number of			
									(a) Specimens of sputum, etc., examined ...			369
6. Number of attendances at the Dispensary (including Contacts) ...				1137					(b) X-ray examinations made in connection with Dispensary work			176
7. Number of attendances of non-pulmonary cases at Orthopaedic Out-stations for treatment or supervision ...				3					14. Number of Insured Persons on Dispensary Register on the 31st December ...			170
8. Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for									15. Number of Insured Persons under Domiciliary Treatment on the 31st December ...			24
(a) "Light" treatment ...				1241					16. Number of reports received during the year in respect of Insured Persons:—			
(b) Other special forms of treatment...				—					(a) Form G.P. 17 ...			24
									(b) Form G.P. 36 ...			25



**TABLE II.—RESIDENTIAL INSTITUTIONS.**

(A) AVERAGE NUMBER OF BEDS AVAILABLE FOR PATIENTS DURING THE  
YEAR 1928.

	Observa- tion.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total.
		"Sana- torium" Beds.	"Hospital" Beds.	Disease of Bones and Joints.	Other Con- ditions.	
Adult Males .....	1	10	6	1	—	18
Adult Females .....	1	9	6	1	—	17
Children under 15 .....	—	3	—	2	1	6
TOTAL .....	2	22	12	4	1	41

(B) RETURN SHOWING THE EXTENT OF RESIDENTIAL TREATMENT DURING  
THE YEAR 1928

			In Institutions on Jan. 1.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31.
Number of Patients	Adults	M.	5	33	16	7	15
		F.	7	30	18	6	13
	Children	M.	3	7	6	—	4
		F.	2	5	2	—	5
Number of Observa- tion Cases	Adults	M.	—	8	7	—	1
		F.	1	5	3	—	3
	Children	M.	2	4	5	—	1
		F.	1	6	5	—	2
	Total ..		21	98	62	13	44

TABLE III.

Return showing the immediate results of treatment of Patients and of observation of doubtful cases discharged from Residential Institutions during the year 1928.

Classification as to the Institution.	Condition at time of discharge.	Duration of Residential Treatment in the Institution.														
		Under 3 months.				3-6 months				6-12 months				More than 12 months	Total	
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.			
PULMONARY TUBERCULOSIS.	Quiescent .....	2	—	3	2	2	1	1	—	—	—	—	—	—	9	
	Improved .....	—	—	—	—	1	1	2	—	—	—	—	—	—	4	
	No material improvement .....	—	1	1	—	—	—	—	—	—	—	—	—	—	2	
	Died in Institution .....	—	—	—	—	—	—	—	—	1	—	—	—	—	1	
	Quiescent .....	—	1	—	1	—	—	—	—	—	—	—	—	—	2	
	Improved .....	—	—	—	1	1	—	—	—	—	—	—	—	—	2	
	No material improvement .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Died in Institution .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Quiescent .....	—	1	—	—	2	—	2	—	—	—	—	—	—	5	
	Improved .....	1	1	—	1	5	1	1	—	—	—	—	—	—	10	
	No material improvement .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Died in Institution .....	1	—	—	—	—	—	—	—	—	—	—	—	—	1	
NON-PULMONARY TUBERCULOSIS.	Quiescent .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Improved .....	—	—	—	1	—	—	—	—	—	—	—	—	—	1	
	No material improvement .....	1	2	—	—	1	—	—	—	—	—	—	—	—	4	
	Died in Institution .....	4	3	—	2	2	—	—	—	—	—	—	—	—	11	
	Quiescent or Arrested .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Improved .....	1	—	—	—	—	—	—	—	—	—	1	2	—	—	
	No material improvement .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Died in Institution .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Quiescent or Arrested .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Improved .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	No material improvement .....	—	—	1	—	—	—	—	—	—	—	—	—	—	1	
	Died in Institution .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
PERIPHERAL GLANDS.	Quiescent or Arrested .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Improved .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	No material improvement .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Died in Institution .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Quiescent or Arrested .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Improved .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	No material improvement .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Died in Institution .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Quiescent or Arrested .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Improved .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	No material improvement .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Died in Institution .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
OBSERVATION for purpose of diagnosis.	Tuberculous .....	—	—	—	—	—	—	—	—	—	—	—	—	1	1	3
	Non-tuberculous .....	—	—	—	—	—	—	—	1	1	—	—	2	—	3	7
	Doubtful .....	—	—	—	—	—	—	—	—	—	—	—	—	3	1	6
	Observation .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10





**TABLE IV.—(a) PULMONARY TUBERCULOSIS.**

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensary (or Dispensaries) at the end of 1928, arranged according to the years in which the Patients first came under Public Medical Treatment for pulmonary tuberculosis, and their classification as shown on Form A.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1926.					1926.					1927.					1928.				
				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. Minus.	Class T.B. plus.			
					Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).
ALIVE.	Discharged as cured.	Adults	M.	35	8	2	1	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			F.	22	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Chil-dren.	M.	18	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			F.	13	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Disease arrested.	Adults	M.	19	5	5	—	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
			F.	17	5	1	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		Chil-dren.	M.	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			F.	4	1	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Disease not arrested.	Adults	M.	6	5	10	3	18	9	1	—	4	5	3	4	8	2	14	8	3	5	2	10
			F.	7	1	10	1	12	7	3	1	3	7	5	—	7	1	8	5	2	6	4	12
		Chil-dren.	M.	—	—	—	—	—	2	—	—	—	—	3	—	—	—	—	3	—	—	—	—
			F.	1	—	1	—	1	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—
CONDITION NOT ASCERTAINED DURING THE YEAR.				—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
LOST SIGHT OF OR OTHERWISE REMOVED FROM DISPENSARY REGISTER.				62	19	35	20	74	24	1	6	6	13	13	1	2	1	4	6	—	3	—	3
DEAD.	Adults	M.	17	11	35	107	153	2	—	2	3	5	2	—	—	9	9	1	—	1	4	5	
		F.	9	4	24	86	114	1	—	1	6	7	—	—	—	5	5	—	1	—	8	9	
	Chil-dren.	M.	—	—	1	3	4	—	—	1	1	2	—	—	—	—	—	—	—	—	—	—	
		F.	2	—	—	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Totals .....				237	65	125	225	415	45	5	11	23	39	26	5	17	18	40	25	6	15	18	39



TABLE 19.—NON-EXTRAORDINARY TUBES

General Notes.—The tubes were taken from the station at the mouth of the river, where they were found in 1907, and were preserved in the same manner as the tubes in Table 18.

Tube No.	Length, feet	Diameter, inches	Weight, pounds	Material	Remarks	Location		Date		Remarks	
						Station	Depth, feet	Month	Year	Condition	Remarks
1	10	1.5	15	Iron	Found in 1907	Station 1	10	July	1907	Good	
2	12	1.5	18	Iron	Found in 1907	Station 1	12	July	1907	Good	
3	14	1.5	20	Iron	Found in 1907	Station 1	14	July	1907	Good	
4	16	1.5	22	Iron	Found in 1907	Station 1	16	July	1907	Good	
5	18	1.5	24	Iron	Found in 1907	Station 1	18	July	1907	Good	
6	20	1.5	26	Iron	Found in 1907	Station 1	20	July	1907	Good	
7	22	1.5	28	Iron	Found in 1907	Station 1	22	July	1907	Good	
8	24	1.5	30	Iron	Found in 1907	Station 1	24	July	1907	Good	
9	26	1.5	32	Iron	Found in 1907	Station 1	26	July	1907	Good	
10	28	1.5	34	Iron	Found in 1907	Station 1	28	July	1907	Good	
11	30	1.5	36	Iron	Found in 1907	Station 1	30	July	1907	Good	
12	32	1.5	38	Iron	Found in 1907	Station 1	32	July	1907	Good	
13	34	1.5	40	Iron	Found in 1907	Station 1	34	July	1907	Good	
14	36	1.5	42	Iron	Found in 1907	Station 1	36	July	1907	Good	
15	38	1.5	44	Iron	Found in 1907	Station 1	38	July	1907	Good	
16	40	1.5	46	Iron	Found in 1907	Station 1	40	July	1907	Good	
17	42	1.5	48	Iron	Found in 1907	Station 1	42	July	1907	Good	
18	44	1.5	50	Iron	Found in 1907	Station 1	44	July	1907	Good	
19	46	1.5	52	Iron	Found in 1907	Station 1	46	July	1907	Good	
20	48	1.5	54	Iron	Found in 1907	Station 1	48	July	1907	Good	
21	50	1.5	56	Iron	Found in 1907	Station 1	50	July	1907	Good	
22	52	1.5	58	Iron	Found in 1907	Station 1	52	July	1907	Good	
23	54	1.5	60	Iron	Found in 1907	Station 1	54	July	1907	Good	
24	56	1.5	62	Iron	Found in 1907	Station 1	56	July	1907	Good	
25	58	1.5	64	Iron	Found in 1907	Station 1	58	July	1907	Good	
26	60	1.5	66	Iron	Found in 1907	Station 1	60	July	1907	Good	
27	62	1.5	68	Iron	Found in 1907	Station 1	62	July	1907	Good	
28	64	1.5	70	Iron	Found in 1907	Station 1	64	July	1907	Good	
29	66	1.5	72	Iron	Found in 1907	Station 1	66	July	1907	Good	
30	68	1.5	74	Iron	Found in 1907	Station 1	68	July	1907	Good	
31	70	1.5	76	Iron	Found in 1907	Station 1	70	July	1907	Good	
32	72	1.5	78	Iron	Found in 1907	Station 1	72	July	1907	Good	
33	74	1.5	80	Iron	Found in 1907	Station 1	74	July	1907	Good	
34	76	1.5	82	Iron	Found in 1907	Station 1	76	July	1907	Good	
35	78	1.5	84	Iron	Found in 1907	Station 1	78	July	1907	Good	
36	80	1.5	86	Iron	Found in 1907	Station 1	80	July	1907	Good	
37	82	1.5	88	Iron	Found in 1907	Station 1	82	July	1907	Good	
38	84	1.5	90	Iron	Found in 1907	Station 1	84	July	1907	Good	
39	86	1.5	92	Iron	Found in 1907	Station 1	86	July	1907	Good	
40	88	1.5	94	Iron	Found in 1907	Station 1	88	July	1907	Good	
41	90	1.5	96	Iron	Found in 1907	Station 1	90	July	1907	Good	
42	92	1.5	98	Iron	Found in 1907	Station 1	92	July	1907	Good	
43	94	1.5	100	Iron	Found in 1907	Station 1	94	July	1907	Good	
44	96	1.5	102	Iron	Found in 1907	Station 1	96	July	1907	Good	
45	98	1.5	104	Iron	Found in 1907	Station 1	98	July	1907	Good	
46	100	1.5	106	Iron	Found in 1907	Station 1	100	July	1907	Good	
47	102	1.5	108	Iron	Found in 1907	Station 1	102	July	1907	Good	
48	104	1.5	110	Iron	Found in 1907	Station 1	104	July	1907	Good	
49	106	1.5	112	Iron	Found in 1907	Station 1	106	July	1907	Good	
50	108	1.5	114	Iron	Found in 1907	Station 1	108	July	1907	Good	
51	110	1.5	116	Iron	Found in 1907	Station 1	110	July	1907	Good	
52	112	1.5	118	Iron	Found in 1907	Station 1	112	July	1907	Good	
53	114	1.5	120	Iron	Found in 1907	Station 1	114	July	1907	Good	
54	116	1.5	122	Iron	Found in 1907	Station 1	116	July	1907	Good	
55	118	1.5	124	Iron	Found in 1907	Station 1	118	July	1907	Good	
56	120	1.5	126	Iron	Found in 1907	Station 1	120	July	1907	Good	
57	122	1.5	128	Iron	Found in 1907	Station 1	122	July	1907	Good	
58	124	1.5	130	Iron	Found in 1907	Station 1	124	July	1907	Good	
59	126	1.5	132	Iron	Found in 1907	Station 1	126	July	1907	Good	
60	128	1.5	134	Iron	Found in 1907	Station 1	128	July	1907	Good	
61	130	1.5	136	Iron	Found in 1907	Station 1	130	July	1907	Good	
62	132	1.5	138	Iron	Found in 1907	Station 1	132	July	1907	Good	
63	134	1.5	140	Iron	Found in 1907	Station 1	134	July	1907	Good	
64	136	1.5	142	Iron	Found in 1907	Station 1	136	July	1907	Good	
65	138	1.5	144	Iron	Found in 1907	Station 1	138	July	1907	Good	
66	140	1.5	146	Iron	Found in 1907	Station 1	140	July	1907	Good	
67	142	1.5	148	Iron	Found in 1907	Station 1	142	July	1907	Good	
68	144	1.5	150	Iron	Found in 1907	Station 1	144	July	1907	Good	
69	146	1.5	152	Iron	Found in 1907	Station 1	146	July	1907	Good	
70	148	1.5	154	Iron	Found in 1907	Station 1	148	July	1907	Good	
71	150	1.5	156	Iron	Found in 1907	Station 1	150	July	1907	Good	
72	152	1.5	158	Iron	Found in 1907	Station 1	152	July	1907	Good	
73	154	1.5	160	Iron	Found in 1907	Station 1	154	July	1907	Good	
74	156	1.5	162	Iron	Found in 1907	Station 1	156	July	1907	Good	
75	158	1.5	164	Iron	Found in 1907	Station 1	158	July	1907	Good	
76	160	1.5	166	Iron	Found in 1907	Station 1	160	July	1907	Good	
77	162	1.5	168	Iron	Found in 1907	Station 1	162	July	1907	Good	
78	164	1.5	170	Iron	Found in 1907	Station 1	164	July	1907	Good	
79	166	1.5	172	Iron	Found in 1907	Station 1	166	July	1907	Good	
80	168	1.5	174	Iron	Found in 1907	Station 1	168	July	1907	Good	
81	170	1.5	176	Iron	Found in 1907	Station 1	170	July	1907	Good	
82	172	1.5	178	Iron	Found in 1907	Station 1	172	July	1907	Good	
83	174	1.5	180	Iron	Found in 1907	Station 1	174	July	1907	Good	
84	176	1.5	182	Iron	Found in 1907	Station 1	176	July	1907	Good	
85	178	1.5	184	Iron	Found in 1907	Station 1	178	July	1907	Good	
86	180	1.5	186	Iron	Found in 1907	Station 1	180	July	1907	Good	
87	182	1.5	188	Iron	Found in 1907	Station 1	182	July	1907	Good	
88	184	1.5	190	Iron	Found in 1907	Station 1	184	July	1907	Good	
89	186	1.5	192	Iron	Found in 1907	Station 1	186	July	1907	Good	
90	188	1.5	194	Iron	Found in 1907	Station 1	188	July	1907	Good	
91	190	1.5	196	Iron	Found in 1907	Station 1	190	July	1907	Good	
92	192	1.5	198	Iron	Found in 1907	Station 1	192	July	1907	Good	
93	194	1.5	200	Iron	Found in 1907	Station 1	194	July	1907	Good	
94	196	1.5	202	Iron	Found in 1907	Station 1	196	July	1907	Good	
95	198	1.5	204	Iron	Found in 1907	Station 1	198	July	1907	Good	
96	200	1.5	206	Iron	Found in 1907	Station 1	200	July	1907	Good	
97	202	1.5	208	Iron	Found in 1907	Station 1	202	July	1907	Good	
98	204	1.5	210	Iron	Found in 1907	Station 1	204	July	1907	Good	
99	206	1.5	212	Iron	Found in 1907	Station 1	206	July	1907	Good	
100	208	1.5	214	Iron	Found in 1907	Station 1	208	July	1907	Good	
101	210	1.5	216	Iron	Found in 1907	Station 1	210	July	1907	Good	
102	212	1.5	218	Iron	Found in 1907	Station 1	212	July	1907	Good	
103	214	1.5	220	Iron	Found in 1907	Station 1	214	July	1907	Good	
104	216	1.5	222	Iron	Found in 1907	Station 1	216	July	1907	Good	
105	218	1.5	224	Iron	Found in 1907	Station 1	218	July	1907	Good	
106	220	1.5	226	Iron	Found in 1907	Station 1	220	July	1907	Good	
107	222	1.5	228	Iron	Found in 1907	Station 1	222	July	1907	Good	
108	224	1.5	230	Iron	Found in 1907	Station 1	224	July	1907	Good	
109	226	1.5	232	Iron	Found in 1907	Station 1	226	July	1907	Good	
110	228	1.5	234	Iron	Found in 1907	Station 1	228	July	1907	Good	
111	230	1.5	236	Iron	Found in 1907	Station 1	230	July	1907	Good	
112	232	1.5	238	Iron	Found in 1907	Station 1	232	July	1907	Good	
113	234	1.5	240	Iron	Found in 1907	Station 1	234	July	1907	Good	
114	236	1.5	242	Iron	Found in 1907	Station 1	236	July	1907	Good	
115	238	1.5	244	Iron	Found in 1907	Station 1	238	July	1907	Good	
116	240	1.5	246	Iron	Found in 1907	Station 1	240	July	1907	Good	
117	242	1.5	248	Iron	Found in 1907	Station 1	242	July	1907	Good	
118	244	1.5	250	Iron	Found in 1907	Station 1	244	July	1907	Good	
119	246	1.5	252	Iron	Found in 1907	Station 1	246	July	1907	Good	
120	248	1.5	254	Iron	Found in 1907	Station 1	248	July	1907	Good	
121	250	1.5	256	Iron	Found in 1907	Station 1	250	July	1907	Good	
122	252	1.5	258	Iron	Found in 1907	Station 1	252	July	1907	Good	
123	254	1.5	260	Iron	Found in 1907	Station 1	254	July	1907	Good	
124	256	1.5	262	Iron	Found in 1907	Station 1	256	July	1907	Good	
125	258	1.5	264	Iron	Found in 1907	Station 1	258	July	1907	Good	
126	260	1.5	266	Iron	Found in 1907	Station 1	260				

**TABLE IV.—(b) NON-PULMONARY TUBERCULOSIS.**

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensary (or Dispensaries) at the end of 1928, arranged according to the years in which the Patients first came under Public Medical Treatment, and their classification as shown on Form A.

				Previous to 1926.					1926.					1927.					1928.				
				Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
ALIVE.	Discharged as cured.	Adults	M.	5	—	—	14	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
			F.	3	—	1	12	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		Chil-dren.	M.	10	8	1	50	69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
			F.	6	8	5	41	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Disease arrested.	Adults	M.	4	—	1	—	5	—	—	—	—	—	1	1	1	3	—	—	—	—	—	
			F.	2	—	—	3	5	2	—	—	—	2	—	—	—	—	—	—	—	—	—	
		Chil-dren.	M.	6	1	—	7	14	2	1	—	3	6	—	—	—	2	2	—	—	—	1	1
			F.	2	—	—	5	7	—	—	—	1	1	—	—	1	1	—	—	—	—	2	2
	Disease not arrested.	Adults	M.	1	1	1	—	3	—	—	—	—	—	—	—	—	—	1	1	—	—	—	2
			F.	1	—	2	—	3	—	—	—	2	2	3	—	—	—	3	—	—	1	1	2
		Chil-dren.	M.	3	1	1	1	6	—	—	—	1	1	1	1	1	1	4	1	—	—	4	5
			F.	—	—	—	1	1	1	1	—	—	2	1	—	—	3	4	2	—	—	5	7
TRANSFERRED TO PULMONARY .....				1	1	1	6	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
CONDITION NOT ASCERTAINED DURING THE YEAR.				—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
LOST SIGHT OF OR OTHERWISE REMOVED FROM DISPENSARY REGISTER				21	6	1	23	51	1	1	5	4	11	—	—	—	—	—	—	—	—	—	
DEAD.	Adults	M.	5	—	2	—	7	—	—	1	—	1	1	1	—	2	—	—	—	—	—		
		F.	3	2	3	1	9	—	—	1	—	1	1	—	—	1	—	—	—	—	—		
	Chil-dren.	M.	2	—	5	—	7	—	—	—	—	—	—	—	1	—	1	—	1	—	—	1	
		F.	2	6	2	3	13	—	—	1	—	1	—	1	—	—	1	—	—	—	—	—	
TOTALS .....				77	34	26	167	304	6	3	8	11	28	7	4	3	8	22	4	2	1	13	20



# General Sanitary Work.

Only 23 cesspools are in existence in the Borough.

There are at the present time 84 privies in the Borough, the whole of which are outside the sewer area.

Some extension of sewerage capacity is becoming necessary.

## GENERAL SANITARY WORK.

The following Table shows the nature and amount of work done during the year by the Highways Department under orders sent to it by the Health Department, and also the corresponding figures for the two preceding years :—

	1926	1927	1928
Houses drained or re-drained .....	512 ....	249 ....	162
House drains unstopped .....	495 ....	426 ....	502
Midden privies converted into W.C.'s ....	14 ....	12 ....	4
Bristol ejects and trough closets converted into fresh-water closets .....	25 ....	18 ....	7
Wet ashpits converted into dry .....	0 ....	0 ....	0
Sundry structural nuisances abated .....	221 ....	164 ....	134
Totals .....	<u>1,267</u> ....	<u>869</u> ....	<u>809</u>

The implication from these figures is that the Sanitary condition with respect to both house drains and structure has been raised to a highly satisfactory point.

The whole of the houses within the sewer area in the Borough now having been connected to the Public Sewer, and a greater amount of work carried out by private contractors accounts for much of the reduction. Further work, exceeding in the aggregate that referred to in the Table, has been completed under Private Contract.

## ASHBINS.

Ashbins should be used for the temporary deposit of ashes and other similar refuse not subject to decomposition; hence the name "Ashbin." It is nevertheless the custom to pile into the ashbin everything which it is wanted to get rid of, and which, being out of sight, can also be out of mind.

It would be an advantage if people would endeavour to get rid of and destroy at the house more of the refuse than they do; in particular it would be better if worthless waste paper could be burnt at the house instead of being placed in the ashbin.

The disposal of this waste paper is becoming a definite problem in itself and will have to be taken seriously.

# Factory and Workshop Acts.

The following Report is made out in accordance with the requirements of the Home Office, to whom a copy of this Report has to be sent.

## FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK. 1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES ..... (Including Factory Laundries).	156	3	None.
WORKSHOPS ..... (Including Workshop Laundries).	467	7	„
WORKPLACES .....	218	0	„
Totals .....	841	10	„

## 2.—DEFECTS FOUND.

Particulars.	Number of Defects			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts—*</i>				
Want of Cleanliness .....	4	4	None.	None.
Want of Ventilation .....	—	—	„	„
Overcrowding .....	—	—	„	„
Want of Drainage of Floors .....	—	—	„	„
Other Nuisances .....	5	5	„	„
Sanitary Accommodations {	insufficient	1	1	„
	unsuitable or	1	1	„
	defective	1	1	„
not separate for sexes	0	0	„	„
<i>Offences under the Factory and Workshop Act</i>				
Illegal occupation of Underground Bakehouse (S. 101) .....	None.	None.	„	„
Breach of special Sanitary Requirements for Bakehouses (SS. 97 to 100).....	7	7	„	„
Other Offences .....	None.	None.	„	„
Total.....	18	18	„	„

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

|| Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted in Southport. The standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops is in accordance with the Sanitary Accommodation Order of 4th February, 1903.



#### 4.—REGISTERED WORKSHOPS.

Total number of workshops on Register.....358

#### 5.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspectors of Factories .....	—
Failure to affix Abstract of the Factory and Workshop Act (S. 133).....	—
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5) {	7
Notified by H.M. Inspector .....	—
Reports (of action taken) sent to H.M. Inspector	—
Other Matters—Forms received from H.M. Inspector <i>re</i> New Workshops .....	15
Underground Bakehouses (S. 101)—	
Certificates granted during the year .....	—
In use at the end of the year .....	7

GEO. C. BARNES,

*Medical Officer of Health.*

NOTE.—The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health, in his ANNUAL REPORT to the District Council to report specifically on the administration of the Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office).

#### SMOKE ABATEMENT.

During the year smoke consuming apparatus has been fixed to five boilers and a sixth is being dealt with at the present time.

I refer to the table (*infra*) giving deposits from the atmosphere here and elsewhere, which completely demonstrates the remarkable relative clearness of the local atmosphere.

#### ABSTRACT OF WORK OF SANITARY INSPECTORS.

Total Visits .....	32,187
Complaints received from public .....	1,051
Inspections on complaints .....	1,051
Miscellaneous Inspections .....	7,641
Houses completely inspected—for in-going tenants, sickness, etc.	446
Re-inspections relating to sanitary defects under notice, etc.....	3,066

# Routine Inspections of Special Premises :—

Factories and Workshops, including Bakehouses.....	436
Common Lodging-houses.....	287
Stable Premises.....	38
Offensive Trades .....	154
Milk Shops.....	370
Smoke Observations (one hour each).....	86

# Sanitary Defects Remedied :—

Houses re-drained, or drains amended, etc.....	395
Privies, etc., converted into W.C.'s.....	23
Miscellaneous Nuisances, etc., remedied.....	916

Total .....	<u>14,909</u>
-------------	---------------

# Notices Served for Abatement of Nuisances, etc. :—

Verbal.....	85
Preliminary .....	140
Statutory .....	233
Sewer complaints reported to Highway Department.....	57
Sanitary Certificates issued.....	11

# Infectious Diseases :—

Inquiries into Cases .....	2,008
Patients removed to Isolation Hospital.....	214
Houses disinfected.....	336
Bedding disinfected .....	476
Schools disinfected .....	3
Stables and Cowsheds disinfected.....	2
Notices to School Attendance Officers.....	2,122
Notices to Free Library.....	1,877
Notices to School Medical Officer.....	1,296

# Consumption :—

Cases notified.....	114
Pulmonary.....	84
Non-Pulmonary.....	30
Number of Visits to Tuberculosis Patients.....	1,664
Patients' Visits to Dispensary.....	1,116
Examined by Tuberculosis Officer.....	654
Enquiries—Contacts.....	3,801
Contacts examined by Tuberculosis Officer .....	68



## ABATEMENT OF NUISANCES.

Only 3 per cent. of the total Nuisances reported remained wholly or partly unabated at the end of the year. Viewed in the light of the present prevailing difficulties, this is to be considered extremely satisfactory.

### REPORT ON ABATEMENT OF NUISANCES FOR THE YEAR.

It represents .....	1,357
Cases of which .....	1,320

(97 per cent.) have been satisfactorily complied with. The rest are under enquiry as to progress made.

The remaining number 37 are classified as follows:—

Partially complied with .....	6
Deferred for further negotiation.....	14
Work in Progress.....	1
In Contractors' Hands.....	9
In Surveyor's Hands.....	8
Premises Unoccupied .....	5

## SANITARY CERTIFICATES.

Householders are strongly advised to have the Drains and Sanitary Fitments of their dwellings inspected and tested triennially. These occasional examinations act as an insurance against sickness from environmental defects.

### HOUSING ACT, 1909.

#### HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910. ARTICLE V.

	1923	1924	1925	1926	1927	1928
Houses completely inspected for various causes .....	664	553	653	906	839	446
Reports made under Housing Acts, 1909 and 1919 .....	45	28	16	14	0	0
Notices served under the said Housing Acts	41	33	15	4	0	0
Houses reported under Section 11 of 1925 Act for closing .....	1	0	6	7	6	2
Houses considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.....	1	0	6	7	6	2
Closing Orders made by Local Authority ..	0	0	6	7	6	2
Dwelling-houses closed after Closing Orders	0	0	3	7	4	2
Houses reported under Section 15 and Section 28 for repairs necessary to put such houses into a fit state for human habitation .....	45	28	16	14	0	0
Notices served under Sections 15 and 28..	41	33	15	4	0	0

	1923	1924	1925	1926	1927	1928
Orders under Sections 15 and 28 complied with by Owners.....	28	15	5	10	0	0
Orders carried out by Local Authority under the powers of the Act.....	0	0	0	0	0	0
Orders not complied with under Section 17	1	0	0	0	0	0
Orders not complied with under Section 15 and Section 28.....	17	13	10	4	0	0
New Houses Erected and Certified.....	70	309	630	730	504	300
Houses closed on Owners' initiative.....	0	0	0	0	0	0

Most of the work during the year has been carried out under The Public Health Acts.

### SHOPS INSPECTION.

Much of the Inspectors' time is occupied in patrolling, and in the greater part of this no entrance that can be included in the count of visits set out in the Table below is involved. The Table includes evening visits.

Total Visits ..... 1,879

Breaches of Shops' Acts Discovered :—

Trading during prohibited hours .....	15
Assistants not getting full time for meals .....	—
Assistants not getting Weekly Half-holiday .....	—
No Notice in Shop <i>re</i> Weekly Half-holiday.....	44
No Notice in Shop <i>re</i> Closing Day.....	45
Shop Seats—Absence of.....	1
No Notice in Shop <i>re</i> Mixed Business.....	34

Action taken as to offences :—

Warned verbally .....	138
Warned by letter.....	1
Reported to Local Authority.....	—
Prosecutions.....	—
Night Patrol—Hours.....	50

### THE REMOVAL OF HOUSEHOLD REFUSE.

	1924	1925	1926	1927	1928
Estimated Amount of Refuse removed from Borough ..... Loads	13,952	14,128	13,731	13,588	13,670
Number of Ashpits replaced by Ashbins during the year.....	91	42	141	55	18

It should be noted that a "load" now signifies a much heavier weight than formerly, owing to the carrying capacity of the wagons having been increased.



### **RATS AND MICE (DESTRUCTION) ACT, 1919.**

1924	Notices served .....	Nil
1925	„ „ .....	4
1926	„ „ .....	5
1927	„ „ .....	2
1928	„ „ .....	4

We have no difficulty in getting any measures we suggest taken. In fact the occupiers of premises show as much anxiety to get rid of the rodents as we do.

### **NATIONAL RAT WEEK 1928.**

During the year the Corporation have co-operated with the owners of several large business premises in the town in an endeavour to get rid of these, and are satisfied that much good has been done in this direction. We have also given advice and prescriptions to owners and occupiers and have found a general willingness on their part to carry out our suggestions.

# Maternity and Child Welfare.

The Health Committee has adopted the scale of fees for doctors called by a Midwife in emergency under the Midwives' Act where the family is unable to pay.

There are five Welfare Centres: at Hampton Road, High Park, Liverpool Road, Crossens, and Hoghton Street. There is a Central Voluntary Committee with a separate Sub-Committee for each Centre. The Health Visitors attend on all occasions.

The Health Committee have arranged a system of co-ordination with St. Katherine's Home and the Southport and Birkdale Day Nursery.

In virtue of this arrangement the Corporation were to pay the Institutions, as a subsidy, 25 per cent. of their net expenditure for each financial year; the net expenditure being reckoned as their gross approved expenditure less their earned income. This is in addition to a 50 per cent. grant paid by the Ministry of Health. The amount of this grant is subject to modification in the ensuing financial year.

The following Table gives the causes for which the Midwives required medical assistance during the year:—

Mother	{	Abortion.....	1
		Ruptured perineum .....	44
		Uterine inertia .....	18
		Chest trouble .....	1
		Collapse .....	1
		Pyrexia .....	8
		Hæmorrhage .....	2
		Adherent Placenta .....	3
		Breech presentation .....	1
		Mastitis .....	1
		Anæsthetic .....	1
		Face to Pubes .....	1
		Obstructed labour .....	2
		Difficult Micturition .....	3
		Pain in right side .....	1
		Swollen Legs .....	2
		Occipital Posterior .....	2
		B.B.A.....	1
		Megrim .....	1
			—
			94
			—
Child	{	Hare Lip and Cleft Palate .....	1
		Premature .....	6
		Inflammation of Eyes .....	6
		Cough .....	1
		Dangerous Feebleness .....	2
		Convulsions .....	3
		Not definitely specified .....	1
			—
			20
			—



## MIDWIVES' ACTS, 1902 & 1928.

The number of Midwives in practice at the end of the year was 24, 22 of whom hold the Certificate of the Central Midwives Board. They are visited regularly by the Inspector of Midwives about once a quarter when their Registers, Midwives' Bag, and Appliances are examined. During the year 753 Births were notified to the Local Supervising Authority by the Midwives, medical help being obtained for 114 cases.

STILLBIRTHS (Corrected) .....	35
Number notified by Medical Practitioners .....	15
"          "          Midwives .....	22
Number of Births notified by Medical Practitioners .....	294
"          "          "          Midwives .....	753
Number of Births notified (corrected) .....	1,007

## INFANTILE CARE.

Births notified to M.O.H. : Legitimate.....	943
"          "          "          Illegitimate .....	64
Births not notified .....	5
"          "          (1927) .....	9
Infants visited at home .....	839
"    stillborn .....	40
"    who died within 24 hours of birth .....	18
"    breast fed .....	685
"    partly breast fed .....	22
"    artificially fed .....	118
"    removed .....	16
Ante-natal cases : 1st visits .....	166
Re-visits .....	498
Post-natal cases : 1st visits .....	807
Re-visits.....	3,760
Infants : 1st visits .....	802
Re-visits .....	3,773
Children seen at home—1 to 5 years .....	4,576
Infants seen at home—Sore eyes .....	31
Deaths of infants under 1 year of age :—	
Breast fed .....	27
Artificially fed .....	22
Died under 24 hours .....	14
Too good to visit .....	6
	—
	69
	—

# MATERNITY WARD, CURZON ROAD, SOUTHPORT.

21 BEDS.

(1) Number of cases in the Home on January 1st, 1928 .....	9
(2) Number of cases admitted during 1928 .....	307
(3) Average duration of stay .....	14 days.
(4) No. of cases delivered by (a) Midwives .....	248
(b) Doctors .....	59
(5) No. of cases in which medical assistance was sought by the Midwife with reasons for requiring assistance. (a) Ante-Natal.  (b) during Labour.  (c) after Labour (state separately number of ruptured perineums which required suture)  (d) for infant.	<p>(a) Every case seen by Doctor at Ante-Natal Clinic with the exception of three emergencies.</p> <p>(b) 13 cases.</p> <ol style="list-style-type: none"> <li>1. V.D.H. of mother.</li> <li>2. Occipito-posterior.</li> <li>1. Prolapsed cord.</li> <li>2. Contracted outlet.</li> <li>1. Extended legs and arms.</li> <li>1. Position not diagnosed (Mongolian baby).</li> <li>1. Transverse position with prolapsed arm (emergency).</li> <li>4. Uterine inertia (2nd stage).</li> </ol> <p>(c) No case apart from 14 ruptured Perineums (50% of the cases have the slightest lacerations, whether external or internal, repaired).</p> <p>(d) 4 cases.</p> <ol style="list-style-type: none"> <li>1. Atelectasis.</li> <li>2. Dangerous feebleness.</li> <li>1. Hare-lip and cleft palate.</li> </ol>
(6) No. of cases notified as (a) puerperal fever and (b) „ pyrexia .....	<p>Nil.</p> <p>Ten. All recovered.</p>
(i.e. rise of temperature to 100.4° F. for 24 hours or its recurrence within that period) with result of treatment in each case.	
(7) No of cases of Pemphigus Neonatorum ....	Two.
(8) No. of cases notified as Ophthalmia Neonatorum with result of treatment in each case .....	One. Cured.



**MATERNITY WARD, CURZON ROAD, SOUTHPORT.—cont.**

21 BEDS.

(9) No. of cases of "inflammation of the eyes," however slight .....	15.
(10) No. of infants not entirely breast-fed while in the Institution with reasons why they were not breast-fed.	<div>13.</div> <div> 1. Pernicious Anæmia.  4. General Debility.  1. V.D.H. of mother.  2. Babies being put out to nurse.  1. Refusal of mother to feed.  4. Alternate feeds—twins and two of triplets (other died). </div>
(11) No. of maternal deaths with causes .....	None.
(12) No. of foetal deaths (a) stillborn, and (b) within 10 days of birth and their causes—and the results of the post mortem examination if obtainable.	<div>(a) 14.</div> <div> 1. Albuminuria of mother (prematurity).  1. Persistent occipito-posterior position.  1. Prolapsed cord.  1. Breech (extended legs and arms).  1. Mongolian.  1. Arm presentation (emergency).  1. Premature rupture of membranes (one week before admission).  1. Albuminuria of mother with uterine inertia.  2. Prolonged labour (emergency).  1. Macerated foetus.  1. Cord twice round neck of baby.  2. Twins. Mother admitted with pneumonia following Rheumatic Fever. </div> <div>(b) 6.</div> <div> 2. Atelectasis.  1. Placenta Prævia (premature).  1. Albuminuria (premature).  1. Hare-lip and cleft palate (Atelectasis).  1. Twin. Premature. </div> <div>No post-mortem examinations were held.</div>

## REPORT ON THE MATERNITY HOSPITAL AND ANTE-NATAL CLINIC FROM JANUARY 1st to DECEMBER 31st, 1928.

During this period 307 cases were confined and there were 1,700 attendances at the Ante-Natal Clinic.

Eleven private patients were sent in and attended to by their own Doctor and these are not included in this Report.

Fifteen emergency cases were sent in by Doctors, all of which I saw at once and attended to personally.

1. *A case that had been in labour for three days.*

On examination the presentation was found to be occipito-posterior. The position was rectified, forceps applied, and a live baby delivered.

2. *A case of Albuminuria.*

Patient was treated in the Ante-Natal department, the albuminuria was corrected, and she was normally confined of a live baby.

3. *A case that had been in labour for two days.*

The baby's head was not engaged in the pelvis. It could however be pushed in, so an injection of pituitary was given; and a normal delivery and a live baby resulted.

4. *A case where baby was reported dead in Utero.*

Patient had a normal delivery and live baby.

5. *Case of ante-partum hæmorrhage.*

The cause was lateral placenta prævia. There was a normal delivery and live baby.

6 and 7 were normal deliveries.

8. *Case of threatened abortion* which aborted.

9. *Case of Hydramnios.*

The waters were drained away very slowly and a Mongolian stillborn baby was delivered.

10. *Case of arm presentation.*

Version was done and baby delivered by breach—white asphyxia—stillborn.

11. *Case of ante-partum hæmorrhage.*

Cause was marginal placenta prævia. Podalic version was done and patient left to deliver herself normally of a live baby.

12. *Case of contracted pelvis.*

It was possible to engage the head so forceps were applied and a live baby delivered.

13. *Case of Eclampsia at the sixth month of pregnancy.*

She was admitted at 11 p.m. on 7.9.28, having had two fits before admission. She had three fits after admission. She responded to treatment and was discharged on 24.9.28 without symptoms and the urine clear. She was re-admitted in labour on 8.10.28 and was delivered of a macerated foetus.



14. *Case was normal.*

15. *Case of delayed second stage of labour.*

Pituitrin was given, live baby was secured ; but placenta was adherent and had to be manually removed.

Regarding our own cases, the hospital is run more and more from the ante-natal department.

*Albuminurias.* The urine is examined for albumin in every case on the patient's first visit and on all subsequent visits. If the urine is found to contain albumin and there are no urgent symptoms, the patient is warned of the danger, instructed about diet, clothing, exercise and rest, and the action of the excretory organs. She is allowed to go home if her home and other conditions are suitable, but she must report at the clinic the following week. If in a week's time there has been no improvement she is recommended to enter the ante-natal department for treatment. On the strict treatment carried out there, many patients get quite clear of the albuminuria and are allowed out again to complete their term of pregnancy at home, being given special instructions and a request to attend the ante-natal clinic each week till confinement. The most urgent symptoms usually appear during the last three weeks of pregnancy, and in those cases labour is induced by the "stomach-tube" method.

No case of Eclampsia has occurred in any patient who has attended the ante-natal clinic.

*Malpresentations.* The presentations are diagnosed each week at the ante-natal clinic and entered on the patient's chart. If a slight correction is necessary it is done then, but usually the patient is told to report at the ante-natal department one evening when I am to be there. Practically every woman who has attended the ante-natal clinic commences labour with her baby as a vertex presentation in an occipito-anterior position. We had only one case of occipito-posterior presentation, and in this case the patient allowed labour to advance too far before reporting herself. The position could not be corrected or the baby delivered, and craniotomy had to be performed in the interests of the mother.

There were two cases of breach presentation, which, after repeated attempts could not be turned. One was a multipara. The baby was delivered by the Sister as a breach and weighed 8 lbs. ; the other was a primipara and was delivered by a staff nurse. Both babies were alive and did well.

*Misfits.*

During the later weeks of pregnancy especial care is taken at the ante-natal clinic to make sure that the child's head will enter the maternal pelvis. In doubtful cases if the head can be pushed in, the presumption is that the patient will be all right for another two weeks. She is told to go home and have a large dose of castor oil. This very often has the desired effect ; but if not she reports at the clinic the following week when she is admitted to the ante-natal department. If conditions are suitable quinine and pituitrin are given to encourage pains ; and if that is unsuccessful labour is induced. Operative interference is avoided as much as possible and during the fortnight of grace all possible means are taken to bring on labour without manual interference. In our hands here the "stomach-tube" method has never failed to bring on labour within 48 hours.



If the disproportion is apparent before the 36th week of pregnancy the patient is advised to go her full time and have caesarean section at term. We had three such cases in the year, two of them coming from St. Katherine's Home, but, in Southport, gross pelvic deformities are rare.

#### *Repair.*

This in my opinion is a signally important matter. I have not kept statistics, but I should say roughly that one in every five or six cases gets some lacerations during parturition. It is my implicit instruction to the Sister that every case is to be carefully examined for lacerations after her labour is completed, and these are regularly repaired by me within a few hours of delivery. They are in my opinion of much more grave importance than perineal tears although those are also attended to.

I attach great importance to them for two reasons—(1) The prior reason is that a raw surface, after the blood with its cleansing leucocytes has ceased to pass freely over it, is a trap for infection and absorption. If the edges are approximated by suture and a eusol gauze pack inserted in the vagina the chances of septic absorption are reduced to a minimum; and (2) The ultimate reason is that if these lacerations are not repaired but allowed to granulate, etc., the contour of the vagina is altered, prolapse of the womb is encouraged and a colporrhaphy operation later on is a most probable sequel.

#### *Puerperium.*

Before any patient leaves Hospital after her confinement she is again examined by me to see principally—

- (1) If the lacerations have healed well.
- (2) Is there any subinvolution.
- (3) If there is any deviation of the uterus.

If any deviation is present a Smith-Hodge pessary is inserted and the patient discharged and told to report again within a month for removal of the pessary. If the pessary is removed she is told to report again in two weeks to see that the position of the womb is maintained, and again a month later as involution of the uterus is not yet complete and a relapse might still occur.

#### *Observations.*

In this work I realize how very dependent I am on my Staff and particularly on the Sister in charge. If the Eusol packs are not regularly changed and the patients kept surgically clean there is a great danger of toxic absorption and morbidity.

I am glad to take this opportunity of paying a very high tribute to the Sister and her staff for their exceptional devotion to their work and their meticulous attention to detail in the after-care of their patients.

Since Sister Graham took over duties in February, 1927, we have had 761 cases with

No maternal death,  
No case of white leg,  
No case of puerperal morbidity,

that could be associated in any way with infection of the parturient canal.

This I regard as a subject for legitimate pride.

(Signed) A. S. GARDEN, M.D., S.M.,  
Obstetrician in Charge.



## WELFARE CENTRES.

Dr. Rye, through illness, has been unable to continue her invaluable services as Honorary Medical Officer to the Hampton Road and Liverpool Road Centres. The Deputy and Assistant Medical Officers now attend all Welfare Centres.

We note some tendency on the part of the people who most require the advantages of the Centres to fail to attend ; and this is not easy to remedy.

Name of Centre.	ATTENDANCES.							TREATED.			
	Nursing Mothers.		Expectant Mothers.		Infants.		Children over 1 and under 5.	Nursing Mothers.	Expectant Mothers.	Infants.	Children over 1 and under 5.
	1st visits.	Re-visits.	1st visits.	Re-visits.	1st visits.	Re-visits.					
Hampton Road ...	114	1652	3	51	116	1006	866	233	48	1089	8
High Park.....	187	2620	33	109	187	1949	939	638	97	2131	9
Liverpool Road ...	100	2437	23	90	97	1737	1522	450	110	1834	15
Crossens .....	63	1216	13	40	63	738	846	165	41	799	8
Hoghton Street ...	130	2142	13	25	120	1625	914	184	26	1744	9
Totals .....	594	10067	85	315	583	7055	5087	1670	322	7597	50

### ATTENDANCES.

	Nursing Mothers.		Expectant Mothers.		Infants.		Children over 1 and under 5 years.
	1st visit.	Re-visit.	1st visit.	Re-visit.	1st visit.	Re-visit.	
1924...	384	6617	35	95	384	4407	2876
1925...	479	8416	58	191	472	5651	3607
1926...	586	9511	60	248	599	6742	4150
1927...	629	10316	70	246	644	7539	4934
1928...	594	10067	85	315	583	7055	5087

1928 ... Total attendances ... .. 23,786

## ANTE-NATAL CLINIC AT 2, CHURCH STREET.

This was open in August. Notices were placed in the Welfare Centres pointing out to the Mothers that advice on their health could be obtained on these occasions. This resulted in Gynæcological cases attending in addition to the ante-natal ones, but it had the advantage of advertising the Clinic. The former cases were seen and the necessary treatment advised or the patient referred to the appropriate Hospital.

With regard to the ante-natal cases, the midwives have either brought or sent over half the number; this is very satisfactory. There have been two cases of contracted pelvis which Dr. Garden very kindly took charge of; three cases of albuminuria which cleared up, and two mothers who were markedly under-nourished were given assistance. If the income is below the scale, a pint of milk is granted daily after six months of pregnancy.

1st Visits—		Re-Visits.
Gynæcological.	Ante-natal.	
12	30	40

There have been no Maternal deaths among those who have attended the Clinic.

An increase in the cases attending is confidently expected.

### MATERNITY HOSPITAL.

Excellent work has been done in the present Hospital since it was opened in 1921. The Building, which was of a temporary character, will shortly be replaced with one thoroughly up to date through the munificence of Miss Hartley.

### ST. KATHERINE'S HOME, 5, LATHOM ROAD.

Total number of admissions during 1928 :—

Maternity Cases.....	26
Rescue Cases.....	—
Night Cases .....	18
Preventive .....	3
	—
	47
	==

Total number of discharges during 1928 :—

Maternity Cases.....	22
To the Union.....	None
To V.D. Ward .....	2
Rescue Cases to Mental Homes .....	None
Rescue Cases to other Homes.....	„
Rescue Cases to Domestic Service.....	„
Night Cases .....	21
	—
	43
	==

Average length of time kept in Home.....27 weeks.

Visits paid by former Inmates..... 946



NUMBER OF BABIES IN ST. KATHERINE'S HOME IN 1928 :—

Babies admitted to Home.....	2
Babies born in Home.....	22
	—
	24
	==

NUMBER DISCHARGED FROM HOME DURING 1928 :—

Discharged with the Mothers.....	11
To Foster-mothers.....	4
To another Home.....	4
To V.D. Ward.....	1
To The Union.....	—
	—
	20
	==

**SOUTHPORT AND BIRKDALE DAY NURSERY, DUKE STREET.**

Individual Children admitted.....	85
Attendance (days).....	2,597

**OPHTHALMIA NEONATORUM.**

Cases.			Vision un- impaired.	Vision impaired.	Total Blindness.	Deaths.
Notified.	Treated.					
3	At Home. 3	In Hospital. Nil.	3	Nil.	Nil.	Nil.

N.B.—All out-door Midwives are instructed to use Silver Nitrate 1% immediately after birth.

**NOTIFICATION OF PUERPERAL FEVER AND PUERPERAL PYREXIA  
REGULATIONS, 1926.**

Notifications of Puerperal Pyrexia .....	6
Removed to Hospital .....	3
Nursed at home.....	3
	—
	6
	==

All the cases completely recovered.

## SUPPLEMENTARY HEALTH VISITING.

Special Enquiries—Medical Officer of Health.....	157
Incidental Calls.....	495
Visits to Infectious Diseases.....	103
Visits to houses found closed.....	1,114
Visits to Midwives.....	38

(See also Report of School Medical Officer.)

## GENERAL ARRANGEMENTS MADE FOR ATTENDING TO THE HEALTH OF EXPECTANT AND NURSING MOTHERS AND OF CHILDREN UNDER FIVE YEARS OF AGE.

The Notification of Births Act, 1907 (adopted by the Local Authority 1908), requires all Medical Practitioners and Midwives to notify the Medical Officer of Health within 36 hours after the birth has taken place.

This Act is invaluable, as visits can be paid to infants directly after birth if necessary; but usually they are not made until after the tenth day, so as not to encroach upon the Midwife's province. This works very well, and the District Midwives afford assistance in sending mothers to the Centres.

When the Health Visitor calls, not only is advice given *re* the Infant, but all children in the house are seen, and a friendly word given. The general cleanliness of the home, sobriety and occupation of the parents and causes of deaths of other children are noted—the last often indicating the advice needed.

The Welfare Centres, five in number, are held in the most populous parts of Southport.

Hampton Road Mission Hall on Thursday at 2.30 p.m. (Opened 1914).  
92, Poulton Road, High Park, on Wednesday at 2.30. (Opened 1918).  
Wesleyan Schools, Liverpool Road, on Tuesday at 2.30. (Opened 1919).  
Rufford Road, Crossens, on Wednesday at 2.30. (Opened 1921.)  
Baptist Schools, Hoghton Street, on Tuesday at 2.30. (Opened on December 7th 1926).

All mothers with babies and expectant mothers are heartily welcomed. Tea and biscuits are provided for which a charge of 1d. is made, and biscuits and milk for the children 2d.

Much good and valuable work is being done at the Centres. The voluntary workers undertake all duties except treatment, which is done by the Health Visitors. Children suffering from defective vision, external eye disease, skin trouble, marasmus, rickets, etc., or any other complaint are referred to a Private Doctor, or, if unable to pay, are sent to an appropriate clinic.

A sewing class, which is well attended, is held weekly at High Park. The voluntary helpers look after the children while the mothers devote their time to dressmaking and knitting.



The principal aims of these Centres are the supervision of the health of the mother during the ante-natal and post-natal periods, and education in hygiene and mothercraft. At every session a qualified Medical Practitioner is in attendance. During the year, 1928, mothers and children under five years of age, made 11,061 and 12,725 attendances respectively at the various Centres.

The Nursing Homes Registration Act, 1927, came into operation on July 1st. This Act repeals part II. of the Midwives and Maternity Homes Act.

Compensation may be made to Midwives under part I, section 2 (I) of the Midwives and Maternity Homes Act 1926 "which provides that where a midwife has been suspended from practice in order to prevent the spread of infection, she shall, if she was not herself in default, be entitled to recover from the Local Sanitary Authority such amount by way of compensation from loss of practice as is reasonable in the circumstances of the case." The basis of compensation should be calculated on the loss of income actually sustained by the midwife, and the payments should not exceed the reasonable amounts paid by her to other Midwives whom she has had to employ to attend such patients confined during her period of suspension.

# DENTAL MATERNITY CENTRE, 1928.

Date.	Appointments.		Number Treated.		New Cases.	Extractions.	Anaesthetic.		Fillings.	Root Treatment.	Dressings.	Scalings.	Oral Affections.	Examined.	Impressions Taken.	Bite Taken.	Try In.	Finished Dentures.				Repair.	Re-make.
	1st visits.	Re-visits.	Loc. N <sub>2</sub> O Gen.				Partial.											Full.					
Jan.....	47	17	27		4	5	1	—	9	—	—	—	5	10	17	3	5	1	1	2	2	5	—
Feb.....	36	9	25		5	22	22	—	1	—	—	—	5	4	6	1	3	1	—	2	1	3	2
March ...	49	13	29		4	43	15	—	1	13	3	—	5	7	13	5	7	—	—	1	1	—	—
April ...	38	9	31		6	23	23	—	—	20	14	—	3	7	6	—	4	1	1	2	1	2	—
May.....	51	6	44		4	79	37	—	2	18	7	—	5	8	4	1	1	—	—	2	1	—	1
June ...	39	3	26		3	22	4	—	1	7	6	—	5	5	10	3	2	1	—	—	—	—	—
July.....	51	4	55		2	65	28	—	1	6	—	—	8	6	19	8	11	2	4	4	3	1	3
August	13	10	9		3	12	12	—	—	—	—	—	1	8	6	1	1	—	—	1	1	—	—
Sept. ...	60	21	52		44	79	21	—	4	5	—	1	10	11	24	6	11	1	3	3	3	1	2
Oct.....	70	16	65		16	48	20	—	1	25	6	8	1	17	14	4	8	2	2	4	2	3	—
Nov. ...	64	10	58		5	44	21	—	1	7	3	1	9	17	20	5	6	2	1	3	3	4	—
Dec.....	55	1	57		1	57	15	—	2	8	2	3	—	19	4	8	9	—	—	2	4	—	1
Totals ...	573	119	478		97	499	219	—	13	119	41	13	8	92	101	147	68	11	13	26	21	21	9



# SUMMARY OF VARIOUS CLINICS.

Days and Times of Attendances.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Infant Welfare Centres—						
Liverpool Road.....		2-30				
High Park .....			2-30			
Crossens .....			2-30			
Hampton Road.....				2-30		
Hoghton Street .....					2-30	
Sewing Classes—						
High Park .....				2-30		
Ante-Natal Clinic—						
2, Church Street.....		10-0				
Maternity Ward, Curzon Road.....					11-0	
Maternity Dental Clinic ...		2 p.m.			2 p.m.	
School Clinic, 2, Church St.						
Minor Ailment Clinic ...	2-30					
Ophthalmic Clinic.....					2-30	
Skin Clinic .....				2-30		
Tonsil & Adenoid Clinic				9-30 (when necessary)		
Artificial Sunlight Treatment Clinic.....	9-30		9-30		9-30	
Nasal Clinic .....		2 30			2-30	
Aural Clinic .....				10-0		
Treatment Clinic .....	9-30	9-30	9-30	9-30	9-30	9-30
Dental Clinic .....	9-30 and 2 p.m.	9-30 and 2 p.m.	9-30 and 2 p.m.	9-30 and 2 p.m.	9-30 and 2 p.m.	
Tuberculosis Dispensary..		2-0				
Venereal Diseases—						
Southport Infirmary—						
Clinic—Men .....	5-30			5-30		
„ Women .....		2-0				
Treatment Clinic - Men	8-30-10 a.m.	8-30-10 a.m.	8-30-10 a.m.	8-30-10 a.m.	8-30-10 a.m.	8-30-10 a.m.
„ „	6-8 p.m.	6-8 p.m.	6-8 p.m.	6-8 p.m.	6-8 p.m.	6-8 p.m.
„ Women	10-12 a.m.	10-12 a.m.	10-12 a.m.	10-12 a.m.	10-12 a.m.	10-12 a.m.
„ „	2-4 p.m.	6-8 p.m.	2-8 p.m.	2-4 p.m.	2-8 p.m.	2-8 p.m.

# Southport Blind Welfare Committee.

1. The arrangements made with the Manchester and Salford Blind Aid Society have been continued during the year.

2. ON THE REGISTER 31ST DECEMBER, 1927 .. .. . 102

## REMOVED FROM THE REGISTER

Males 2, deceased, aged 82, 79 .. .. .	}	6
2 left the town .. .. .		
Females 2, deceased, aged 93, 69 .. .. .		

## REGISTERED DURING THE YEAR—

Males, age 67, 12, 9 .. .. .	}	6
Females, age 67, 67, 65.. .. .		

## ON THE REGISTER 31ST DECEMBER, 1928—

	Under 15	16-21	22-49	50-69	70 & over	
MALES ..	9	2	7	22	9	49
FEMALES ..	5	1	12	23	12	53

TOTAL .. 102

Children in "Sunshine House" .. .. . 31

Persons in receipt of Old Age Pension .. .. .	56
Visits paid by the Home Teacher to persons in their own homes ..	779
Classes held for instruction .. .. .	93
Socials held during the Winter months .. .. .	11

3. RESIDENT IN INSTITUTIONS FOR THE BLIND—

	Males.	Females.
Hardman Street, Liverpool .. .. .	2 age 31, 16	1 age 21
Royal Normal College, London .. .. .	1 „ 17	—
Catholic Blind Asylum, Liverpool .. .. .	1 „ 14	—
Wavertree Schools for the Blind,		
Liverpool .. .. .	3 „ 14, 10, 9	1 „ 9
Calderstones, Whalley .. .. .	—	1 „ 10

4. GRANTS.

Grants have been given to the amount of .. .. .	£508
Persons receiving weekly grant .. .. .	26
Average weekly amount of grant .. .. .	7/-
Augmentation paid to Home Workers .. .. .	£84 13s.

## INSTRUCTIONAL CLASSES, ETC.

Classes are held every Monday and Wednesday afternoon from 1-30 to 4-30 p.m. at the Technical Schools; average attendance, 7.

Instruction is given by Miss Mace and the Home Teacher, in embossed reading and writing, rush and cane-chair seating, basketry, hand-knitting, etc.

Instruction in the above subjects is given to the blind in their own homes when they are unable to attend the classes.



## HOME WORKERS.

Number of Home Workers	..	..	..	..	..	5
Average amount of weekly augmentation	..	..	..	..	..	9/3

One additional Home Worker has been approved by the Ministry of Health.

It is to be hoped that it will be possible to keep the Home Workers more fully occupied in the future.

## PASTIME.

To assist the Home Workers and those engaged in pastime occupations in the disposal of their work, a Sale of Work was held.

The receipts from the sales, etc., exceeded £49.

A permanent sub-committee has been appointed to develop this important branch.

## SOCIAL EVENTS.

September 5th, 1928, picnic to Morecambe—Blind and guides present, 55.  
December 12th, 1928, Christmas party—Blind and guides present, 80.  
Social gatherings held fortnightly in the Schoolroom, Portland Street, average attendance, 50.

The Picnic to Morecambe was organized by members of the Southport Branch of the **Rotary Club** and **Toc H.**

Our thanks are due to :—The Rotary Club ; Toc H., for keeping the Wireless sets in order, etc. ; the Advertising and Band Committee for free seating in the Municipal Gardens ; Dr. de Courcy and the Infirmary Staff ; the Students at the Technical School for acting as guides ; the Manchester Wireless for the Blind Fund ; and others.

Miss Mace has continued her valuable services.

# Supervision of Food Supplies.

## VISITS TO :—

Public Slaughter-houses .....	515
Private Slaughter-houses .....	219
Butchers' Shops .....	2,330
Fish and Poultry Shops .....	2,317
Other Shops .....	7,187
Restaurant or Hotel Kitchens (workplaces) .....	62
Ice-cream Workshops .....	22
Ice-cream Stalls .....	35
Potted Meat and Fish Works .....	127
Piggeries .....	488
Cowsheds .....	165
Milk Farms outside the Borough .....	4
Bacteriological Examination of Milk .....	106
Private Premises where Pigs are killed .....	379
	<hr/>
	13,956
	<hr/>

## UNSOUND FOOD DESTROYED.

### Under Magistrate's Order :—

Nil.

### By Consent of Owner or Consignee :—

Beasts' Carcases and all Organs .....	49
Beasts' Livers .....	86
Beasts' Lungs (sets) .....	157
Beef (lbs.) .....	313
Beasts' Hearts .....	5
Beasts' Head .....	—
Pigs' Livers .....	81



Pigs' Carcases and all Organs .....	19
Pigs' Lungs (sets) .....	74
Pork (lbs.) .....	547
Sheeps' Carcases and all Organs .....	4
Rabbits .....	4
Lambs' Carcases and all Organs .....	6
Rough Shrimps (quarts) .....	140
Beasts' Stomachs .....	8
Beasts' Intestines .....	5
Pigs' Heads .....	4
Mutton (lbs.) .....	56
Beasts' Mesenteric Fat .....	72
Sheep's Liver .....	18
Beasts' Spleens .....	13
Beasts' Skirts.....	33
Pigs' Hearts .....	21
Lambs' Livers .....	6
Beasts' Kidneys .....	2
Unsweetened Condensed Milk (Tins) .....	371
Chickens .....	24
Grapes (lbs.) .....	171
Pork Sausages (lbs.) .....	5
Pigs' Stomachs .....	2
Loganberries (Tins) .....	34

# FOODS AND DRUGS ACTS.

## SUMMARY OF SAMPLES SUBMITTED FOR ANALYSIS.

Informal Samples				Nature of Sample.	Formal Samples					
Number Taken	Number Genuine	Adulterated			Number Taken	Number Genuine	Adulterated		Vendors Cautioned	Prosecutions
		Materially	Trivially or doubtful				Materially	Trivially or doubtful		
—	—	—	—	Milk .....	79	68	5	6	6	5
2	2	—	—	Coffee .....	—	—	—	—	—	—
2	2	—	—	Cocoa .....	—	—	—	—	—	—
1	1	—	—	Liquorice Powder ...	—	—	—	—	—	—
1	1	—	—	Cream of Tartar ....	—	—	—	—	—	—
1	1	—	—	Epsom Salts.....	—	—	—	—	—	—
1	1	—	—	Calcined Magnesia...	—	—	—	—	—	—
2	2	—	—	Seidlitz Powder .....	—	—	—	—	—	—
1	1	—	—	Black Currant Jam..	2	2	—	—	—	—
2	2	—	—	Strawberry Jam ....	2	2	—	—	—	—
1	1	—	—	Condensed Milk ....	—	—	—	—	—	—
3	3	—	—	Butter .....	14	14	—	—	—	—
—	—	—	—	Raspberry Jam ....	1	1	—	—	—	—
3	3	—	—	Cheese .....	3	3	—	—	—	—
1	1	—	—	Lime Juice Cordial ..	1	1	—	—	—	—
1	1	—	—	Fresh Cream.....	5	4	—	1	1	—
2	2	—	—	Pork Sausage .....	8	8	—	—	—	—
2	2	—	—	Lemon Cheese .....	1	1	—	—	—	—
1	1	—	—	Brown Bread .....	—	—	—	—	—	—
3	3	—	—	Sponge Cake .....	—	—	—	—	—	—
1	1	—	—	Marmalade .....	1	1	—	—	—	—
2	2	—	—	Camphorated Oil....	—	—	—	—	—	—
1	1	—	—	Olive Oil .....	—	—	—	—	—	—
1	1	—	—	Blackberry Jelly....	—	—	—	—	—	—
2	2	—	—	Honey .....	—	—	—	—	—	—
—	—	—	—	Sterilized Milk.....	5	3	2	—	—	2
1	1	—	—	Gregory Powder ....	—	—	—	—	—	—
1	1	—	—	Lard .....	1	1	—	—	—	—
—	—	—	—	Whiskey .....	6	5	1	—	—	1
1	1	—	—	Beef Suet .....	—	—	—	—	—	—
1	1	—	—	Black Currant and Apple Jelly	—	—	—	—	—	—
2	2	—	—	Brawn .....	—	—	—	—	—	—
1	1	—	—	Beef Sausage .....	2	2	—	—	—	—
1	1	—	—	Cod Liver Oil Tablets	—	—	—	—	—	—
2	2	—	—	Damson Jam .....	1	1	—	—	—	—
1	1	—	—	Syrup of Senna .....	—	—	—	—	—	—
1	1	—	—	Potted Shrimps ....	—	—	—	—	—	—
—	—	—	—	Extract of Meat ....	1	—	1	—	—	1
1	1	—	—	Raspberry Vinegar ..	—	—	—	—	—	—
1	1	—	—	Tinned Peas .....	—	—	—	—	—	—
1	1	—	—	„ Tomatoes ...	—	—	—	—	—	—
1	1	—	—	Calves Foot Jelly ...	—	—	—	—	—	—
1	1	—	—	Liquid Cascara ....	—	—	—	—	—	—
—	—	—	—	Sagrada	—	—	—	—	—	—
1	1	—	—	Malt & Cod Liver Oil.	—	—	—	—	—	—
1	1	—	—	Ground Almonds....	—	—	—	—	—	—
1	1	—	—	Icefoam Crystal ....	—	—	—	—	—	—
—	—	—	—	Bread and Butter ..	7	5	2	—	—	2
1	1	—	—	Tinned Loganberries	—	—	—	—	—	—
2	2	—	—	Cream .....	—	—	—	—	—	—
—	—	—	—	Picked Shrimps ....	1	—	—	1	1	—
—	—	—	—	Mince Meat .....	1	1	—	—	—	—
60	60	—	—		142	123	11	8	8	11



## **PARTICULARS OF SAMPLES REPORTED TO BE NOT GENUINE.**

**BREAD AND BUTTER.**—Two Formal Samples were reported against, Margarine being supplied instead of Butter. In each case the Vendor was fined £5.

**WHISKEY.**—One Formal Sample was 46·6 degrees under proof. Proceedings were taken and the Vendor was fined £10. Genuine Whiskey is not more than 35 degrees under Proof.

**EXTRACT OF MEAT AND MALT WINE.**—One Formal Sample was reported against containing only a trace of Meat Extract and Malt and no Alcohol, and proceedings instituted. The case was dismissed on the defence that the label and statements by the person who sold the goods to the Vendor constituted a warranty.

**SHRIMPS.**—One Sample contained a very small portion of boric acid, so small as to be of no use for preservative purposes. An explanation that the slight contamination was accidental was tendered by the Vendor, who was afterwards cautioned.

**FRESH CREAM.**—Two cases were reported against. One contained a very small percentage of Boric Acid, and the Vendor was cautioned. Subsequent samples from this source proved genuine. The second case was found to be "Reconstituted" Cream and no action was taken. The legal position with respect to "Reconstituted" Cream and "Synthetic Cream" should be sharply defined.

**MILK.**—Eleven Formal Samples were reported against. In six cases the Vendors were cautioned, and proceedings taken in the five others. Two of them were dismissed, the Bench being satisfied that the milk was sold in the same condition as it came from the Cow. One defendant was fined 40s. In the other two cases samples were taken from the producer in course of delivery, a previous sample taken from a Vendor with a good record having been found to be adulterated. The producer was prosecuted and fined £10 in one case and £5 in the second.

**STERILIZED MILK.**—Two cases were taken to Court, one being 13% and the other 10% short of Fat. The Vendor in each case was fined £10.

## **SLAUGHTER-HOUSES.**

The time is close at hand when the whole question of the Public Slaughter-houses will have to be considered with a view to modern accommodation being provided.

The Public Slaughter-houses are in Poplar Street, on a plot of freehold land comprising 5,258 square yards. The buildings were erected in 1880.

There are thirteen Slaughter-houses. Seven are let to butchers at a yearly rental; the other six are used in common by butchers who pay a "head rate." There are a like number of lairs directly opposite the Slaughter-houses. During 1928 there were 23,625 animals slaughtered. In the middle of the yard between the lairages are two gut-scraping establishments.

Animals slaughtered in the Borough for human consumption :—

	Poplar Street Slaughter-houses.			In the Six Private Slaughter-houses.		Totals.
	Public.	Rented.				
Cattle .....	699	1,265	....	790	....	2,754
Calves .....	393	778	....	155	....	1,326
Sheep .....	3,832	15,628	....	9,052	....	28,512
Pigs .....	1,030	—	....	848	....	1,878
	<hr/>	<hr/>		<hr/>		<hr/>
Total ....	5,954	17,671	....	10,845	....	34,470
	<hr/>	<hr/>		<hr/>		<hr/>

851 Pigs have been killed on private premises. It is quite time improved Pig-slaughtering accommodation should be provided at the Public Slaughter-houses, so as to enable the slaughtering to be done under proper supervision.

### PRIVATE SLAUGHTER-HOUSES.

There are six Private Slaughter-houses in the District. Only three of the six are in use. They are kept satisfactorily clean and free from nuisance, and the business in each case is properly conducted. About 31% of the animals slaughtered in the District are dealt with in the Private Slaughter-houses.

### THE PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

No difficulty has been experienced during the year, and none is anticipated. The trade generally is of a very high class, and the President and Members of the Butchers' Association may be relied on to maintain an exceptional standard all round.



## BACTERIOLOGICAL EXAMINATION OF MILK.

	Samples from Producers in the Borough.	Samples from Producers outside the Borough.
Samples from Bulk .....	(a) 13	(a) 88
Of which found to be Tuberculous.....	(b) 0	(b) 2
Samples from individual cows (from the above 13 and 88 cases).....	7	0
Of which found to be Tuberculous.....	0	0

(a) Guinea Pigs died before test completed—14.

In both cases the farms from which the Tuberculous samples came, were visited by the County Veterinary Surgeon and the Borough Veterinary Surgeon who carefully examined all the Cattle. In the first case 3 samples were taken, two being mixed ; one from eight cows and one from seven cows. The third was from a 5 year old roan Cow affected with slight hypertrophy in two quarters of the udder. Tubercle bacilli was absent in all three samples. Subsequent samples produced a like result.

In the second case 3 samples were taken. In the two mixed samples Tubercle bacilli was absent. The third sample was from a red Cross-bred short horn Cow and Tubercle bacilli was found. The animal affected was dealt with under the Tuberculosis Order.

The standard of Cleanliness in Milk has received attention, but in no case was sufficient pollution found to justify a prosecution.

### TUBERCULOSIS ORDER, 1925.

This Order of the Minister of Agriculture and Fisheries, dated the 13th day of July, 1925, came into operation on the 1st September, 1925. It gives to Local Authorities powers similar to those contained in the Tuberculosis Order, 1914, which was suspended in August, 1914.

Under the new Order every person having in his possession or under his charge (1) any Cow which is, or appears to be, suffering from Tuberculosis of the Udder, Indurated Udder or other Chronic Disease of the Udder ; or (2) any Bovine animal which is, or appears to be, suffering from Tuberculous Emaciation ; or (3) any Bovine animal which is suffering from Chronic Cough and showing definite Clinical signs of Tuberculosis, is required to give notice of the fact to the Local Authority.

Provision is made for compensation to be paid to the owner of every animal dealt with under the Order ; during 1928 the Local Authority have dealt with five cows, which have all proved to be Tubercular on post-mortem examination. The owner, in each case received the minimum amount of forty-five shillings as compensation. In every case dealt with the cowshed was disinfected after the animal had been removed. We welcome the new Order, and consider the powers given to Local Authorities are of great benefit to the public in safeguarding the milk supply and preventing the harbouring and dissemination of Bovine Tuberculosis ; in fact they have already been most satisfactorily applied.

Animals inspected by the Veterinary Inspector.... 1027

Bovine post-mortems conducted..... 5

# REGISTERED COWKEEPERS AND PURVEYORS OF MILK.

Cowkeepers.	Cowkeepers and Purveyors.	Purveyors.
11 .....	61 .....	145

**WORN-OUT OR DISEASED ANIMALS** brought (some at the instance of the Veterinary or Dairy Inspectors) by cattle dealers or farmers in the Borough and adjoining Districts to be slaughtered for value of salvage, and those dead before arrival :—

From—	Town.	Country.
Tuberculosis .....	20	32
Pyæmia .....	1	0
Accident .....	9	1
Dropsical .....	2	0
Emaciation.....	1	2
Pneumonia .....	3	3
Peritonitis .....	2	0
Jaundice.....	3	0
	—	—
	41	38
	—	—



# Water Supply.

"NO PURER WATER OCCURS IN NATURE."

The water supply is maintained by the Southport, Birkdale, and West Lancashire Water Board, which is a combination of the local Authorities of the County Borough of Southport, the Urban District of Formby, and the West Lancashire Rural District, and supplies water within the area of these three Authorities.

The Board was constituted under Act of Parliament of 1901 to take over the Waterworks Undertaking established by the Southport Waterworks Company in 1854.

The supply is constant and sufficient, and the quality good. With the exceptions referred to below, all property within the Borough is supplied direct from the Board's mains.

The Board owns four Pumping Stations, situated six to ten miles South-West of the Town in the Parishes of Aughton, Bickerstaffe and Lathom, and the whole of the water is obtained from Wells over 200 feet deep. Only three of these Stations, however, supply water to the Borough of Southport. Owing to the depth of the Wells and the nature of the strata, the possibilities of contamination are most remote. The waters have no plumbo-solvent action, and no reports of contamination have been received. Although somewhat hard, the water is exceptionally pure, both chemically and bacteriologically.

The last available figures, namely, those for the year ending 31st March, 1928, show that the Board then supplied, direct, an estimated Population, excluding Summer Visitors, of 104,200. The average domestic consumption, excluding Meter supplies and based on this population figure, was at the rate of about 24.19 gallons per head per day; and the total consumption 31.42.

## HOUSES NOT SUPPLIED WITH TOWN WATER.

There are 16 houses in the Borough which derive their water from shallow wells on their own premises. The cost of furnishing a supply of Town's water to these would exceed the water rate authorised to be charged within the district. The supply from these wells up to the present time has been adequate, and we have no cause for apprehension as regards the quality of the water.

Two small holdings in Town Lane are also situated some considerable distance from the Board's mains. These people use the Board's water carrying it from premises which are supplied by meter.

# ANALYSIS, SAMPLE, 19th OCTOBER, 1928.

## CHEMICAL.

	Parts per 100,000.
Calcium Carbonate .....	18.75
Magnesium Carbonate .....	2.75
Calcium Sulphate .....	1.46
Magnesium Sulphate .....	7.87
Magnesium Chloride .....	4.28
Sodium Carbonate .....	5.60
Potassium Carbonate .....	.85
Silica, etc. ....	.50
	<hr/> 42.06

Temporary hardness .....	22.0
Permanent hardness .....	12.6
Total hardness .....	34.6
Free Ammonia .....	.0005
Organic Ammonia .....	.0005
Oxygen absorbed in 3 hours .....	.015
Nitrates .....	Nil.
Nitrites .....	Nil.
Lead .....	Nil.
Colour seen in a 2-foot tube .....	Pale Blue Green.
Appearance .....	Bright and Sparkling.

The composition of this water remains much the same. The organic purity is fully maintained.

HERBERT E. DAVIES.

## BACTERIOLOGICAL.

No. of organisms per c.c. capable of growing upon nutrient gelatine at 22 deg. C. in three days .....	20 colonies per c.c.
No of organisms per c.c. capable of growing upon agar at 37 deg. C. in three days .....	9 colonies per c.c.
Smallest quantity of water giving acid and gas reaction in double strength bile salt lactose broth (Tubes were incubated for 3 days). ....	absent in 90 c.c. present in 100 c.c.

Streptococci absent in 100 c.c. of water.

Bac. Enteritidis Sporogenes absent in 100 c.c. of water.

E. E. GLYNN.



# RESULTS FOR CONSECUTIVE YEARS.

	Temporary.		Permanent.		Total.
1913—Nov. 28th	....	26.5	....	12.0	38.5
1913—Dec. 18th	....	22.6	....	16.4	39.0
1915—Mar. 18th	....	24.0	....	12.0	36.0
1915—Mar. 23rd	....	21.0	....	12.4	33.4
1916—Feb. 3rd	....	26.2	....	7.6	33.8
1917—Feb. 17th	....	18.7	....	9.6	28.3
1918—Jan. 29th	....	18.6	....	9.9	28.5
1919—Jan. 13th	....	24.9	....	17.0	41.9
1919—Dec. 30th	....	25.5	....	14.6	40.1
1920—Dec. 16th	....	23.0	....	12.8	35.8
1921—June 29th	....	25.5	....	13.8	39.3
1922—Nov. 23rd	....	23.2	....	12.7	35.9
1923—Oct. 9th	....	23.2	....	12.4	35.6
1924—Oct. 21st	....	23.7	....	13.4	37.1
1925—Sept. 30th	....	23.7	....	11.6	35.3
1926—Oct. 5th	....	20.5	....	9.1	29.6
1927—Dec. 24th	....	24.6	....	8.8	33.4
1928—Oct. 19th	....	22.0	....	12.6	34.6

# Meteorology.

## Local Weather.

The outstanding meteorological features of 1928, at Southport, were an unusually heavy total rainfall, a remarkable spell of more or less easterly weather from the latter part of February till early in June, a persistently westerly July (the sunniest month of a rather dull year), and considerable storminess during the later half of November. The first four months of the year formed a very mild period. The astonishing local rarity of snow continued.

## TEMPERATURE OF THE AIR.

1928	Mean Temperature °	Deviation from Normal °	Absolute Highest °	Extremes Lowest °
January .....	41.7 .....	+2.6 .....	55 .....	30
February .....	43.0 .....	+3.3 .....	57 .....	30
March .....	43.2 .....	+1.7 .....	59 .....	27
April .....	48.3 .....	+2.7 .....	75 .....	31
May .....	51.7 .....	+0.6 .....	74 .....	35
June .....	54.9 .....	-1.7 .....	69 .....	42
July .....	59.1 .....	-0.3 .....	72 .....	47
August .....	59.7 .....	+0.6 .....	72 .....	46
September .....	55.1 .....	-0.3 .....	72 .....	34
October.....	50.1 .....	+0.9 .....	65 .....	31
November.....	45.4 .....	+2.3 .....	61 .....	29
December .....	39.3 .....	-0.7 .....	54 .....	21
Year .....	49.3 .....	+1.0 .....	75 .....	21

The absence of any noteworthy extremes of air temperature probably forms the chief feature of the above columns. The year as a whole was warm; the first four months and November especially so. The Summer quarter proved the coolest of the four.



# SUNSHINE AND OZONE.

	Duration of Sunshine Hours	Deviation from Normal Hours	No. of Sunless days	Mean Daily Ozone 0 to 10
1928				
January .....	56.8	+13.5	13	4.4
February .....	67.1	-0.3	4	3.8
March .....	90.6	-28.3	7	3.3
April .....	157.7	-13.8	3	3.3
May .....	184.9	-23.8	1	4.0
June .....	194.2	-18.0	4	3.9
July .....	231.7	+28.3	1	4.8
August .....	166.2	-10.0	1	3.6
September .....	166.3	+27.0	4	2.3
October .....	96.9	-0.1	7	2.9
November .....	47.6	-8.7	8	3.6
December .....	87.4	+0.7	18	3.2
Year .....	1497.4	-33.5	71	3.6

Although the Sun shone for 115 more hours than during 1927, the year was rather dull. Only four months were brighter than usual. Nearly all the deficiency of sunshine however, was caused by the very easterly spring. Two of the holiday months came out well, and the intervening one (August) was not much below normal.

# RAINFALL.

	Total Rainfall Inches	Deviation from Normal Inches	Number of days with rain	Duration of Definite Rainfall Hours
1928				
January .....	7.15	+4.47	27	113.4
February .....	3.31	+1.17	15	53.1
March .....	2.02	-0.21	16	50.1
April .....	1.39	-0.43	14	29.8
May .....	1.45	-0.76	11	21.0
June .....	4.86	+2.70	21	93.5
July .....	2.68	-0.34	12	48.6
August .....	3.12	-0.55	15	54.7
September .....	1.31	-1.82	12	28.5
October .....	5.57	+1.86	22	78.7
November .....	5.72	+2.65	23	84.4
December .....	2.95	-0.32	21	53.8
Year .....	41.53	+8.42	209	704.6

Only three wetter years have occurred during the Observatory's 57 years existence, and all of those were experienced long ago, viz., in 1872 (48 inches), 1875 (42 inches), and 1877 (47 inches).

The large total rainfall for 1928 was produced by heavy amounts in a few months only—January, June, October and November. The January aggregate was the greatest recorded for any Winter month whatever, in the 57 years!

The year's total number of days with rain was 19 more than the average. Snow, however, was again almost absent, the depth for the entire year being only half-an-inch.

## HUMIDITY AND SUBSOIL WATER LEVEL.

1928.	Humidity of the air at 9 a.m. % of Saturation	Deviation from Normal % of Saturation	Mean Level of subsoil Water *	Deviation from Normal
			Inches	Inches
January .....	90 .....	+2 .....	33.6 .....	-0.3
February .....	87 .....	-1 .....	22.8 .....	-9.7
March .....	87 .....	+3 .....	28.4 .....	-4.4
April .....	75 .....	-4 .....	33.2 .....	-1.5
May .....	71 .....	-5 .....	38.8 .....	+1.2
June .....	77 .....	+2 .....	42.2 .....	+0.6
July .....	78 .....	0 .....	42.3 .....	-3.3
August .....	80 .....	0 .....	47.1 .....	-0.4
September .....	80 .....	-2 .....	49.8 .....	+2.0
October .....	87 .....	+1 .....	49.1 .....	+3.0
November .....	88 .....	0 .....	41.1 .....	-0.8
December .....	89 .....	0 .....	34.6 .....	-3.6
Year .....	82 .....	-1 .....	38.6 .....	-1.4

\* Distance below Well-mouth.

Rainy years are not always humid ones, and 1928 was a case in point. Nevertheless that result this time was mainly due to the very dry land airs of April and May.

The unprecedented rainfall of January caused the ground water to rise to an extremely high level by February, and extensive flooding of the surrounding country resulted. The trouble was augmented by the bursting of banks; and a whole-gale and high tides added a considerable incursion of sea-water north of the town.



# WIND DIRECTION (GROUPED)

	Duration Percentages.					Deviations from Normals.			
	N.E.	S.E.	S.W.	N.W.		N.E.	S.E.	S.W.	N.W.
	& E.	& S.	& W.	& N.		& E.	& S.	& W.	& N.
1928.	%	%	%	%		%	%	%	%
January . . . .	2	30	57	11	. . . .	−10	− 4	+18	− 4
February ..	12	27	55	6	. . . .	− 5	− 9	+23	− 9
March . . . . .	38	35	19	8	. . . .	+17	+10	−15	−12
April . . . . .	33	29	16	22	. . . .	+10	+ 9	−18	− 1
May . . . . .	47	14	8	31	. . . .	+21	− 7	−22	+ 8
June . . . . .	18	19	43	20	. . . .	− 5	+ 2	+11	− 8
July . . . . .	1	9	62	28	. . . .	−14	−10	+23	+ 1
August . . . .	7	37	41	15	. . . .	− 7	+15	0	− 8
September ..	25	30	25	20	. . . .	+ 4	+ 2	− 5	− 1
October . . . .	17	44	27	12	. . . .	− 5	+ 8	+ 2	− 5
November ..	21	25	35	19	. . . .	+ 3	− 8	+ 5	0
December ..	21	40	22	17	. . . .	+ 6	+ 2	−10	+ 2
Year . . . .	20	28	34	18	. . . .	+ 1	+ 1	+ 1	− 3

The striking persistence of easterly winds during the Spring, and their rarity in July, have already been mentioned. Equatorial currents were unusually prevalent in January and February.

Except during the Spring, and in September and December, the year was a windy one. Stiff gales occurred in January, February and November, but "storm-force" was not quite attained, and the locality escaped the very destructive visitations that wrought such havoc at Liverpool and along the Wirral seaboard.

(Signed) JOSEPH BAXENDELL,  
Borough Meteorologist.

THE FERNLEY OBSERVATORY,  
SOUTHPORT.



# ATMOSPHERIC POLLUTION—COMPARATIVE STATISTICS.

Monthly Means, at various Places, for the Year April, 1927, to March, 1928.  
In Metric Tons per Square Kilometre.

STATIONS	Rainfall (Per Pollution Gauge.) In Milli- metres.	Insoluble Matter.			Total Insol- uble Matter.	Total Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Carbon- aceous, other than Tar.	Grit, (as Ash).				Sulphates (SO <sub>3</sub> ).	Chlorine (Cl).	Ammonia (NH <sub>3</sub> ).
SOUTHPORT :—										
Hesketh Park . . . .	87	0·04	0·94	1·12	2·10	3·30	5·41	0·65	1·03	0·01
Woodvale Moss . .	79	*	*	*	1·20	2·69	3·90	*	*	*
Edinburgh :—										
Leith Links . . . . .	68	0·15	0·91	1·83	2·89	2·93	5·83	0·72	0·38	0·08
Usher Institute . . . .	74	0·16	0·74	1·88	2·78	4·37	7·15	0·85	0·33	0·10
Glasgow :—										
Alexandra Park . .	85	0·07	1·46	2·62	4·15	4·12	8·27	1·45	0·58	0·24
Bellahouston Park	90	0·03	0·96	1·98	2·97	5·54	8·51	1·61	0·45	0·13
Blythswood Square	93	0·11	2·10	4·62	6·82	6·31	13·14	1·82	0·68	0·22
Botanic Gardens . .	99	0·06	1·58	3·56	5·20	5·66	10·86	1·81	0·51	0·15
Queen's Park . . . .	94	0·03	1·03	2·56	3·62	4·81	8·43	1·23	0·40	0·16
Richmond Park . .	92	0·07	1·82	3·07	4·96	5·67	10·64	1·76	0·55	0·20
Ruchill Park . . . . .	98	0·10	1·37	2·34	3·81	4·95	8·76	1·31	0·63	0·18
Tollcross Park . . . .	88	0·10	1·48	3·05	4·63	5·85	10·48	1·64	0·45	0·17
Victoria Park . . . .	95	0·14	2·83	3·47	6·44	8·13	14·57	2·16	0·68	0·32
Newcastle-on-Tyne :—										
City Road . . . . .	75	0·66	9·75	11·87	22·28	7·45	29·73	2·50	0·90	0·19
Town Moor . . . . .	99	0·27	1·48	1·60	3·35	5·90	9·25	1·45	0·79	0·07
Westgate Road . . . .	96	0·50	3·04	3·81	7·35	8·15	15·51	2·53	0·65	0·10
Burnley . . . . .	134	0·36	5·78	6·53	12·67	15·87	28·54	4·58	1·50	0·38
Leeds :—										
Headingley . . . . .	79	0·07	0·98	0·83	1·88	3·58	5·47	0·80	0·69	0·15
Hunslet . . . . .	76	0·15	2·94	6·44	9·53	7·07	16·61	2·03	0·94	0·55
Park Square . . . . .	78	0·16	2·15	4·01	6·32	4·76	11·08	1·40	1·09	0·28
York Road . . . . .	80	0·21	2·69	3·77	6·67	5·90	12·58	1·83	0·92	0·25
Hull . . . . .	70	0·12	2·51	4·93	7·56	7·53	15·10	2·25	1·02	0·15
Castleford . . . . .	65	0·29	2·38	6·72	9·39	3·42	12·81	0·88	0·74	0·04
Wakefield . . . . .	84	0·25	2·50	3·50	6·25	6·06	12·32	1·75	1·02	0·13
Huddersfield :—										
Cooper Bridge . . . .	73	0·02	1·37	1·92	3·31	11·95	15·26	2·74	1·36	0·31
Deighton . . . . .	99	0·05	2·74	3·53	6·32	7·93	14·24	1·84	1·03	0·19
Rochdale :—										
Cemetery . . . . .	143	0·11	1·11	1·67	2·89	6·11	9·03	1·42	0·90	0·07
Drake Street . . . . .	141	0·21	2·18	4·48	6·87	7·16	14·03	2·04	1·16	0·08
Edwards & Brynings' Works	119	0·15	2·50	4·34	6·99	5·79	12·79	1·23	0·90	0·08
Electricity Works . .	133	0·24	4·91	8·41	13·56	5·67	19·25	1·44	1·03	0·09
Milnrow Road . . . .	139	0·12	2·31	4·75	7·18	5·67	12·88	1·35	1·13	0·06
One Ash . . . . .	135	0·12	1·76	2·79	4·67	5·77	10·45	1·20	0·89	0·07
St. Mary's Church . .	97	0·21	3·37	6·16	9·74	5·37	15·18	1·27	0·69	0·07
Stonyfield . . . . .	135	0·13	2·12	3·94	6·19	5·82	12·01	1·37	1·00	0·09
Technical School . .	?	*	*	*	16·02	3·45	19·46	*	*	*
Town Hall . . . . .	138	0·15	2·18	4·01	6·34	5·31	11·66	1·19	1·00	0·06

\* Not determined.



# ATMOSPHERIC POLLUTION—COMPARATIVE STATISTICS.—continued.

Monthly Means, at various Places, for the Year April 1927, to March 1928.  
In Metric Tons per Square Kilometre.

STATIONS	Rainfall Per Pollution Gauge. In Milli- metres.	Insoluble Matter.			Total Insol- uble Matter.	Total Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Carbon- aceous other than Tar.	Grit, (as Ash).				Sulphates (SO <sub>2</sub> ).	Chlorine (Cl).	Ammonia (NH <sub>3</sub> ).
<b>SOUTHPORT :—</b>										
Hesketh Park . . . .	87	0·04	0·94	1·12	2·10	3·30	5·41	0·65	1·03	0·01
Woodvale Moss . . . .	79	*	*	*	1·20	2·69	3·90	*	*	*
<b>Salford :—</b>										
Ladywell										
Sanatorium . . . . .	84	0·38	4·27	6·62	11·27	4·58	15·86	1·99	1·41	0·09
Peel Park . . . . .	87	1·18	4·41	5·55	11·14	7·26	18·39	3·04	1·86	0·11
Regent Square . . . .	90	1·18	6·20	4·43	11·81	5·63	17·45	2·57	2·04	0·09
St. Helens . . . . .	100	0·24	3·50	6·70	10·44	8·30	18·74	2·69	1·19	0·25
Liverpool . . . . .	84	0·21	2·85	6·55	9·61	8·96	18·56	2·35	1·39	0·19
Rotherham . . . . .	65	0·21	3·07	5·73	9·01	3·37	12·39	1·02	0·75	0·17
Marple . . . . .	73	0·36	3·85	1·74	5·95	2·76	8·71	1·44	0·73	0·07
Stoke-on-Trent . . . . .	74	0·29	1·27	2·98	4·54	2·70	7·25	0·69	0·55	0·08
Leicester . . . . .	65	0·11	2·35	5·81	8·27	4·37	12·64	1·40	0·36	0·05
<b>Birmingham :—</b>										
Central . . . . .	73	0·12	2·09	5·30	7·51	5·09	12·61	1·68	0·67	0·11
Bournville Village	81	0·04	0·72	0·99	1·75	2·86	4·61	0·64	0·28	0·02
Bournville Works ..	83	0·04	0·97	1·50	2·51	3·23	5·75	0·66	0·28	0·01
West Heath . . . . .	82	0·04	0·42	0·97	1·43	2·76	4·20	0·87	0·32	0·06
Gloucester . . . . .	?	*	*	*	3·51	7·27	10·76	*	*	*
Rothamsted . . . . .	72	*	0·58	1·17	1·75	2·37	4·12	*	*	*
Cardiff . . . . .	113	0·25	2·41	5·18	7·84	3·76	11·59	1·04	0·52	0·01
<b>London :—</b>										
Archbishop's Park ..	60	0·15	2·57	3·43	6·15	4·95	11·10	1·68	0·40	0·17
Finsbury Park . . . .	60	0·17	1·87	3·11	5·15	4·11	9·27	1·04	0·43	0·07
Golden Lane . . . . .	47	0·07	4·46	6·53	11·06	8·32	19·39	2·44	0·89	0·21
Kensington . . . . .	51	0·17	1·86	3·49	5·52	4·11	9·63	1·18	0·46	0·05
(Met'rologic'l Office)										
Kew Observatory ..	77	0·10	0·70	1·31	2·11	3·59	5·72	0·99	0·43	0·11
" " ..	84	0·10	0·84	1·41	2·35	4·13	6·49	1·12	0·42	0·23
Ravenscourt Park ..	65	0·12	1·10	2·77	3·99	3·25	7·24	0·94	0·31	0·11
Southwark Park ..	62	0·23	2·52	4·07	6·82	4·02	10·84	1·25	0·44	0·12
Victoria Park . . . .	61	0·07	1·33	2·38	3·78	3·03	6·82	0·90	0·34	0·08
Wandsw'th Common	61	0·11	1·56	2·79	4·46	3·50	7·95	0·89	0·42	0·08
Kingston-on-Thames	48	0·07	0·66	1·02	1·75	3·54	5·29	0·93	0·41	0·00

\* Not determined.

Authority for Atmospheric Pollution data :—J. S. OWENS, D.Sc., M.D., A.M.I.C.E.,  
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Department of Scientific and Industrial Research.

TABLE 1. VITAL STATISTICS OF WISCONSIN, 1900-1910, AND PRELIMINARY RESULTS

Deaths, according to cause					Total number of deaths	
Age	Sex	Cause	Number of deaths	Rate per 1,000	Number of deaths	Rate per 1,000
Under 1	Male	Infantile	1,234	1.23	1,234	1.23
Under 1	Female	Infantile	1,123	1.12	1,123	1.12
1-10	Male	Childhood	2,345	2.34	2,345	2.34
1-10	Female	Childhood	2,234	2.23	2,234	2.23
11-20	Male	Adolescence	3,456	3.45	3,456	3.45
11-20	Female	Adolescence	3,345	3.34	3,345	3.34
21-30	Male	Young adulthood	4,567	4.56	4,567	4.56
21-30	Female	Young adulthood	4,456	4.45	4,456	4.45
31-40	Male	Adult life	5,678	5.67	5,678	5.67
31-40	Female	Adult life	5,567	5.56	5,567	5.56
41-50	Male	Adult life	6,789	6.78	6,789	6.78
41-50	Female	Adult life	6,678	6.67	6,678	6.67
51-60	Male	Adult life	7,890	7.89	7,890	7.89
51-60	Female	Adult life	7,789	7.78	7,789	7.78
61-70	Male	Adult life	8,901	8.90	8,901	8.90
61-70	Female	Adult life	8,890	8.89	8,890	8.89
71-80	Male	Adult life	9,012	9.01	9,012	9.01
71-80	Female	Adult life	8,901	8.90	8,901	8.90
81-90	Male	Adult life	10,123	10.12	10,123	10.12
81-90	Female	Adult life	10,012	10.01	10,012	10.01
91-100	Male	Adult life	11,234	11.23	11,234	11.23
91-100	Female	Adult life	11,123	11.12	11,123	11.12
101-110	Male	Adult life	12,345	12.34	12,345	12.34
101-110	Female	Adult life	12,234	12.23	12,234	12.23
111-120	Male	Adult life	13,456	13.45	13,456	13.45
111-120	Female	Adult life	13,345	13.34	13,345	13.34
121-130	Male	Adult life	14,567	14.56	14,567	14.56
121-130	Female	Adult life	14,456	14.45	14,456	14.45
131-140	Male	Adult life	15,678	15.67	15,678	15.67
131-140	Female	Adult life	15,567	15.56	15,567	15.56
141-150	Male	Adult life	16,789	16.78	16,789	16.78
141-150	Female	Adult life	16,678	16.67	16,678	16.67
151-160	Male	Adult life	17,890	17.89	17,890	17.89
151-160	Female	Adult life	17,789	17.78	17,789	17.78
161-170	Male	Adult life	18,901	18.90	18,901	18.90
161-170	Female	Adult life	18,890	18.89	18,890	18.89
171-180	Male	Adult life	19,012	19.01	19,012	19.01
171-180	Female	Adult life	18,901	18.90	18,901	18.90
181-190	Male	Adult life	20,123	20.12	20,123	20.12
181-190	Female	Adult life	20,012	20.01	20,012	20.01
191-200	Male	Adult life	21,234	21.23	21,234	21.23
191-200	Female	Adult life	21,123	21.12	21,123	21.12
201-210	Male	Adult life	22,345	22.34	22,345	22.34
201-210	Female	Adult life	22,234	22.23	22,234	22.23
211-220	Male	Adult life	23,456	23.45	23,456	23.45
211-220	Female	Adult life	23,345	23.34	23,345	23.34
221-230	Male	Adult life	24,567	24.56	24,567	24.56
221-230	Female	Adult life	24,456	24.45	24,456	24.45
231-240	Male	Adult life	25,678	25.67	25,678	25.67
231-240	Female	Adult life	25,567	25.56	25,567	25.56
241-250	Male	Adult life	26,789	26.78	26,789	26.78
241-250	Female	Adult life	26,678	26.67	26,678	26.67
251-260	Male	Adult life	27,890	27.89	27,890	27.89
251-260	Female	Adult life	27,789	27.78	27,789	27.78
261-270	Male	Adult life	28,901	28.90	28,901	28.90
261-270	Female	Adult life	28,890	28.89	28,890	28.89
271-280	Male	Adult life	29,012	29.01	29,012	29.01
271-280	Female	Adult life	28,901	28.90	28,901	28.90
281-290	Male	Adult life	30,123	30.12	30,123	30.12
281-290	Female	Adult life	30,012	30.01	30,012	30.01
291-300	Male	Adult life	31,234	31.23	31,234	31.23
291-300	Female	Adult life	31,123	31.12	31,123	31.12
301-310	Male	Adult life	32,345	32.34	32,345	32.34
301-310	Female	Adult life	32,234	32.23	32,234	32.23
311-320	Male	Adult life	33,456	33.45	33,456	33.45
311-320	Female	Adult life	33,345	33.34	33,345	33.34
321-330	Male	Adult life	34,567	34.56	34,567	34.56
321-330	Female	Adult life	34,456	34.45	34,456	34.45
331-340	Male	Adult life	35,678	35.67	35,678	35.67
331-340	Female	Adult life	35,567	35.56	35,567	35.56
341-350	Male	Adult life	36,789	36.78	36,789	36.78
341-350	Female	Adult life	36,678	36.67	36,678	36.67
351-360	Male	Adult life	37,890	37.89	37,890	37.89
351-360	Female	Adult life	37,789	37.78	37,789	37.78
361-370	Male	Adult life	38,901	38.90	38,901	38.90
361-370	Female	Adult life	38,890	38.89	38,890	38.89
371-380	Male	Adult life	39,012	39.01	39,012	39.01
371-380	Female	Adult life	38,901	38.90	38,901	38.90
381-390	Male	Adult life	40,123	40.12	40,123	40.12
381-390	Female	Adult life	40,012	40.01	40,012	40.01
391-400	Male	Adult life	41,234	41.23	41,234	41.23
391-400	Female	Adult life	41,123	41.12	41,123	41.12
401-410	Male	Adult life	42,345	42.34	42,345	42.34
401-410	Female	Adult life	42,234	42.23	42,234	42.23
411-420	Male	Adult life	43,456	43.45	43,456	43.45
411-420	Female	Adult life	43,345	43.34	43,345	43.34
421-430	Male	Adult life	44,567	44.56	44,567	44.56
421-430	Female	Adult life	44,456	44.45	44,456	44.45
431-440	Male	Adult life	45,678	45.67	45,678	45.67
431-440	Female	Adult life	45,567	45.56	45,567	45.56
441-450	Male	Adult life	46,789	46.78	46,789	46.78
441-450	Female	Adult life	46,678	46.67	46,678	46.67
451-460	Male	Adult life	47,890	47.89	47,890	47.89
451-460	Female	Adult life	47,789	47.78	47,789	47.78
461-470	Male	Adult life	48,901	48.90	48,901	48.90
461-470	Female	Adult life	48,890	48.89	48,890	48.89
471-480	Male	Adult life	49,012	49.01	49,012	49.01
471-480	Female	Adult life	48,901	48.90	48,901	48.90
481-490	Male	Adult life	50,123	50.12	50,123	50.12
481-490	Female	Adult life	50,012	50.01	50,012	50.01
491-500	Male	Adult life	51,234	51.23	51,234	51.23
491-500	Female	Adult life	51,123	51.12	51,123	51.12
501-510	Male	Adult life	52,345	52.34	52,345	52.34
501-510	Female	Adult life	52,234	52.23	52,234	52.23
511-520	Male	Adult life	53,456	53.45	53,456	53.45
511-520	Female	Adult life	53,345	53.34	53,345	53.34
521-530	Male	Adult life	54,567	54.56	54,567	54.56
521-530	Female	Adult life	54,456	54.45	54,456	54.45
531-540	Male	Adult life	55,678	55.67	55,678	55.67
531-540	Female	Adult life	55,567	55.56	55,567	55.56
541-550	Male	Adult life	56,789	56.78	56,789	56.78
541-550	Female	Adult life	56,678	56.67	56,678	56.67
551-560	Male	Adult life	57,890	57.89	57,890	57.89
551-560	Female	Adult life	57,789	57.78	57,789	57.78
561-570	Male	Adult life	58,901	58.90	58,901	58.90
561-570	Female	Adult life	58,890	58.89	58,890	58.89
571-580	Male	Adult life	59,012	59.01	59,012	59.01
571-580	Female	Adult life	58,901	58.90	58,901	58.90
581-590	Male	Adult life	60,123	60.12	60,123	60.12
581-590	Female	Adult life	60,012	60.01	60,012	60.01
591-600	Male	Adult life	61,234	61.23	61,234	61.23
591-600	Female	Adult life	61,123	61.12	61,123	61.12
601-610	Male	Adult life	62,345	62.34	62,345	62.34
601-610	Female	Adult life	62,234	62.23	62,234	62.23
611-620	Male	Adult life	63,456	63.45	63,456	63.45
611-620	Female	Adult life	63,345	63.34	63,345	63.34
621-630	Male	Adult life	64,567	64.56	64,567	64.56
621-630	Female	Adult life	64,456	64.45	64,456	64.45
631-640	Male	Adult life	65,678	65.67	65,678	65.67
631-640	Female	Adult life	65,567	65.56	65,567	65.56
641-650	Male	Adult life	66,789	66.78	66,789	66.78
641-650	Female	Adult life	66,678	66.67	66,678	66.67
651-660	Male	Adult life	67,890	67.89	67,890	67.89
651-660	Female	Adult life	67,789	67.78	67,789	67.78
661-670	Male	Adult life	68,901	68.90	68,901	68.90
661-670	Female	Adult life	68,890	68.89	68,890	68.89
671-680	Male	Adult life	69,012	69.01	69,012	69.01
671-680	Female	Adult life	68,901	68.90	68,901	68.90
681-690	Male	Adult life	70,123	70.12	70,123	70.12
681-690	Female	Adult life	70,012	70.01	70,012	70.01
691-700	Male	Adult life	71,234	71.23	71,234	71.23
691-700	Female	Adult life	71,123	71.12	71,123	71.12
701-710	Male	Adult life	72,345	72.34	72,345	72.34
701-710	Female	Adult life	72,234	72.23	72,234	72.23
711-720	Male	Adult life	73,456	73.45	73,456	73.45
711-720	Female	Adult life	73,345	73.34	73,345	73.34
721-730	Male	Adult life	74,567	74.56	74,567	74.56
721-730	Female	Adult life	74,456	74.45	74,456	74.45
731-740	Male	Adult life	75,678	75.67	75,678	75.67
731-740	Female	Adult life	75,567	75.56	75,567	75.56
741-750	Male	Adult life	76,789	76.78	76,789	76.78
741-750	Female	Adult life	76,678	76.67	76,678	76.67
751-760	Male	Adult life	77,890	77.89	77,890	77.89
751-760	Female	Adult life	77,789	77.78	77,789	77.78
761-770	Male	Adult life	78,901	78.90	78,901	78.90
761-770	Female	Adult life	78,890	78.89	78,890	78.89
771-780	Male	Adult life	79,012	79.01	79,012	79.01
771-780	Female	Adult life	78,901	78.90	78,901	78.90
781-790	Male	Adult life	80,123	80.12	80,123	80.12
781-790	Female	Adult life	80,012	80.01	80,012	80.01
791-800	Male	Adult life	81,234	81.23	81,234	81.23
791-800	Female	Adult life	81,123	81.12	81,123	81.12
801-810	Male	Adult life	82,345	82.34	82,345	82.34
801-810	Female	Adult life	82,234	82.23	82,234	82.23
811-820	Male	Adult life	83,456	83.45	83,456	83.45
811-820	Female	Adult life	83,345	83.34	83,345	83.34
821-830	Male	Adult life	84,567	84.56	84,567	84.56
821-830	Female	Adult life	84,456	84.45	84,456	





TABLE I. VITAL STATISTICS OF WHOLE DISTRICT DURING 1928 AND PREVIOUS YEARS.  
COUNTY BOROUGH OF SOUTHPORT.

YEAR.	Population estimated to middle of each year.	BIRTHS.				TOTAL DEATHS REGISTERED IN THE DISTRICT.			TRANSFERABLE DEATHS. <i>a</i>			NETT DEATHS BELONGING TO THE DISTRICT.		
		Un-corrected Number.		Nett.		Number *	Rate	Z	of Non-residents registered in the District.	of Residents 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
1918	69,000	776	788	10.99	1042	15.79		93	119	47	60	1059	16.05	
1919	70,000	877	887	12.14	1038	14.83		98	132	80	90	1078	15.40	
1920	70,000	1259	1261	17.26	915	13.07		81	121	68	54	945	13.50	
1921	71,900	1120	1106	15.38	894	12.43		71	97	77	70	920	12.80	
1922	72,020	1023	1028	14.27	940	13.05		79	114	58	56	975	13.54	
1923	72,410	1012	996	13.76	940	12.98		69	106	65	65	977	13.49	
1924	73,650	952	934	12.90	977	13.24		78	109	59	63	1006	13.66	
1925	74,260	988	973	13.10	880	11.85		56	118	59	61	937	12.62	
1926	77,970	942	928	11.90	878	11.26		72	124	58	62	930	11.93	
1927	78,670	973	958	12.18	1002	12.64		64	130	46	48	1067	13.56	
1928	79,290	959	957	11.54	1002	12.64		72	132	69	75	1044	13.17	

<sup>z</sup> Including deaths in the Borough Isolation Hospital in the West Lancashire Rural District.

\* In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the district, military deaths excepted.

In Column 12 is entered the number in Column 6, corrected by subtraction of the number in Column 8 and by the addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

<sup>a</sup> "Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.

<sup>b</sup> See remarks, Table III.

The following Special Cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) have been regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission the death is not transferable.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement have been referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence have been referred (a) to the district of residence, under the general rule; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known; (c) failing this, to the district where death occurred, if known; and (d) failing this, to the district where the body was found.

	Census	
	1911	1921
Total population at all ages .....	69,643	71,900
Number of inhabited houses .....	15,676	16,314
Average number of persons per house .....	4.44	4.41
Area of District in acres (land and inland water) ...	9,426	9,426





**TABLE II. CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1928.**  
COUNTY BOROUGH OF SOUTHPORT.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH LOCALITY.					TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.							1	2	3	4	5	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	Six Central Wards. Est. pop. 31,968	Scaris- brick and Sussex Wards. Est. pop., 15,270	Park and Birkdale West Wards. Est. pop., 9,843	Hesketh Ward. Est. pop., 5,480	Birkdale N'rh, East South and Ainsdale, Wards. Est. pop., 16,729	
Small-pox .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera (C) Plague (P) .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria (including Membranous Croup) .....	71	1	12	33	12	12	1	—	29	18	8	10	6	68
Erysipelas .....	29	—	—	—	—	7	17	5	10	4	4	2	9	5
Scarlet Fever .....	123	3	22	69	17	12	—	—	42	28	16	15	22	111
Typhus Fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever .....	1	—	—	—	1	—	—	—	1	—	—	—	—	1
Para-Typhoid Fever .....	5	—	—	—	2	2	—	1	4	—	1	—	—	3
Relapsing Fever (R) Continued Fever (C) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia .....	6	—	—	—	2	4	—	—	1	—	1	3	1	3
Tuberculous Meningitis .....	1	1	—	—	—	—	—	—	1	—	—	—	—	1
Poliomyelitis .....	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis .....	82	—	1	5	18	35	20	3	30	18	7	4	23	96
Other forms of Tuberculosis .....	33	1	8	14	4	3	2	1	13	5	3	5	7	—
Chicken Pox .....	484	15	73	319	23	4	—	—	100	116	61	58	99	8
Measles .....	674	11	199	489	13	7	3	2	271	49	48	59	247	14
German Measles .....	27	2	4	16	3	1	—	1	11	3	4	1	8	2
Whooping Cough .....	310	20	141	142	2	4	1	—	61	65	14	63	107	2
Ophthalmia Neonatorum .....	3	3	—	—	—	—	—	—	1	—	—	—	2	—
Pneumonia .....	139	4	30	28	9	24	28	16	42	18	22	16	41	7
Influenzal Pneumonia .....	20	—	—	2	1	2	11	4	7	6	3	—	4	—
Dysentery Amoebic .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria .....	1	—	—	—	—	—	1	—	1	—	—	—	—	—
Encephalitis Lethargica .....	2	—	—	—	—	—	2	—	—	—	1	—	1	—
Cerebro Spinal Meningitis .....	1	—	—	—	—	—	1	—	1	—	—	—	—	1
Totals .....	1963	62	490	1067	107	117	87	33	626	330	193	236	578	322



# STATE OF NEW YORK DEPARTMENT OF AGRICULTURE BUREAU OF MARKET INVESTIGATION

Commodity		Quantity		Value	
Description		Units		Dollars	
Wheat		Bushels		Dollars	
Hard Red Winter		100		10.00	
Soft Red Winter		100		9.50	
Total		200		19.50	
Corn		Bushels		Dollars	
Yellow Dent		100		4.00	
Total		100		4.00	
Soybeans		Bushels		Dollars	
Hullless		100		12.00	
Total		100		12.00	
Oats		Bushels		Dollars	
White		100		3.00	
Total		100		3.00	
Rye		Bushels		Dollars	
Total		100		2.00	
Barley		Bushels		Dollars	
Total		100		1.50	
Clover		Tons		Dollars	
Total		100		10.00	
Hay		Tons		Dollars	
Total		100		5.00	
Straw		Tons		Dollars	
Total		100		1.00	
Total		1000		100.00	

TABLE III. CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1928.  
COUNTY BOROUGH OF SOUTHPORT.

CAUSES OF DEATH	NETT DEATHS AT THE SPECIFIED AGES OF "RESIDENTS," WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT (a).										TOTAL DEATHS OF "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT (b).
	All ages.	Under 1 year.	1 and 2 years.	2 and 3 years.	3 and 4 years.	45 and under 65 years.	65 and over.	RESIDENTS "IN THE DISTRICT (b).			
								1 and 2 years.	3 and 4 years.	45 and over.	
All Causes { Certified (c) Uncertified	2	3	4	5	6	7	8	9	10	11	
	1007	64	18	16	10	25	71	276	527	—	
1—Enteric Fever.....	—	—	—	—	—	—	—	—	—	—	
2—Small-pox .....	—	—	—	—	—	—	—	—	—	—	
3—Measles .....	2	1	1	—	—	—	—	—	—	—	
4—Scarlet Fever.....	—	—	—	—	—	—	—	—	—	—	
5—Whooping Cough .....	9	2	3	4	—	—	—	—	—	2	
6—Diphtheria and Croup .....	1	—	—	—	1	—	—	—	—	—	
7—Influenza.....	29	—	—	1	1	—	2	11	14	—	
8—Erysipelas .....	1	—	—	—	—	—	—	—	1	—	
9—Phtisis (Pulmonary Tuberculosis).....	39	—	—	—	—	2	7	12	14	4	
10—Tuberculous Meningitis .....	4	1	1	1	—	—	—	1	—	—	
11—Other Tuberculous Diseases .....	6	1	—	2	—	2	—	—	1	2	
12—Cancer, malignant disease .....	136	—	—	—	—	1	8	46	81	15	
13—Rheumatic Fever .....	3	—	—	—	—	—	—	2	1	—	
14—Meningitis (See Note (d)) .....	6	3	1	1	—	—	—	1	—	3	
15—Organic Heart Disease.....	135	—	—	—	—	—	4	44	87	3	
16—Bronchitis .....	68	2	3	1	—	—	1	9	52	3	
17—Pneumonia (all Forms).....	76	10	5	3	—	4	8	22	24	11	
18—Other diseases of respiratory organs .....	13	1	—	1	—	—	—	2	9	1	
19—Diarrhoea & Enteritis (See Note (e)) .....	4	4	—	—	—	—	—	—	—	—	
20—Appendicitis and Typhlitis .....	6	—	—	—	2	1	2	1	—	3	
21—Griehosis of Liver .....	9	—	—	—	—	1	—	4	4	—	
21a—Alcoholism .....	1	—	—	—	—	—	—	1	—	—	
22—Nephritis and Bright's Disease .....	45	—	—	—	—	1	4	14	26	6	
23—Puerperal Fever.....	—	—	—	—	—	—	—	—	—	—	
24—Other Accidents and Diseases of Pregnancy and Parturition .....	2	—	—	—	—	—	2	—	—	2	
25—Congenital Debility and Malformation, including Premature Birth.....	35	34	1	—	—	—	—	—	—	11	
26—Violent Deaths, excluding Suicide.....	21	—	—	1	—	1	3	6	10	7	
27—Suicide .....	15	—	—	—	—	2	6	7	—	2	
28—Other Defined Diseases .....	369	10	3	—	4	4	21	99	228	40	
29—Diseases ill-defined or unknown.....	9	—	—	1	—	1	1	4	2	—	
	1044	69	18	16	10	25	75	287	544	111	



# NOTES TO TABLE III.

- (a) All "Transferable Deaths" of residents, i.e., of persons resident in the District who have died outside it, are *included* with the other deaths in columns 2-10. Transferable deaths of non-residents, i.e., of persons resident elsewhere in England and Wales who have died in the District, are in like manner *excluded* from these columns. For the precise meaning of the term "transferable deaths" *see* footnote to Table I. The total deaths in column 2 of Table III equal the figures for the year in column 12 of Table I.
- (b) All deaths occurring in institutions for the sick and infirm situated within the District, whether of residents or of non-residents, are entered in the last column of Table III.
- (c) All deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are regarded as "Uncertified."
- (d) Exclusive of "Tuberculous Meningitis" but inclusive of Cerebro-Spinal Meningitis.
- (e) Title 19 has been used for deaths from Diarrhea and Enteritis at all ages. (In the "Short List," deaths from Diarrhea and Enteritis under 2 years are included under Title 19; those at 2 years and over being placed under Title 28).

TABLE IV. INFANTILE MORTALITY DURING THE YEAR 1928.  
 Nett Deaths from stated Causes at Various Ages under One Year of Age.  
 COUNTY BOROUGH OF SOUTHPORT.

(See Note (a) at Back.)

Causes of Death.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
All causes { Certified ..... { Uncertified .....	24 3	3 —	3 —	1 —	31 3	8 —	14 1	6 1	5 —	64 5
Small-pox .....	—	—	—	—	—	—	—	—	—	—
Chicken-pox .....	—	—	—	—	—	—	—	—	—	—
Measles .....	—	—	—	—	—	—	—	—	1	1
Scarlet Fever.....	—	—	—	—	—	—	—	—	—	—
Whooping Cough .....	—	—	—	—	—	—	1	1	—	2
Diphtheria & Croup .....	—	—	—	—	—	—	—	—	—	—
Erysipelas .....	—	—	—	—	—	—	—	—	—	—
Tuberculous Meningitis .....	—	—	—	—	—	—	1	—	—	1
Abdominal Tuberculosis (b) .....	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases .....	—	—	—	—	—	—	—	1	—	1
Meningitis (not Tuberculous) .....	—	—	—	—	—	1	2	—	—	3
Convulsions .....	1	—	—	—	1	2	1	—	—	4
Laryngitis .....	—	—	—	—	—	—	—	—	—	—
Bronchitis .....	—	—	—	—	—	—	1	—	1	2
Pneumonia (all forms) .....	1	—	—	—	1	1	4	3	1	10
Diarrhoea .....	—	—	—	—	—	1	—	—	—	1
Enteritis.....	—	1	—	—	1	—	—	—	2	3
Gastritis .....	—	—	—	—	—	—	—	—	—	—
Syphilis .....	—	—	—	—	—	—	1	—	—	1
Rickets .....	—	—	—	—	—	—	—	—	—	—
Suffocation, overlying .....	—	—	—	—	—	—	—	—	—	—
Injury at birth .....	1	—	—	—	1	—	—	—	—	1
Atelectasis .....	1	—	—	—	1	—	—	—	—	1
Congenital Malformations (c) .....	3	2	—	1	6	1	2	—	—	9
Premature birth .....	13	—	1	—	14	1	—	—	—	15
Atrophy, Debility & Marasmus .....	3	—	2	—	5	1	1	—	—	7
Other Causes .....	4	—	—	—	4	—	1	2	—	7
Totals .....	27	3	3	1	34	8	15	7	5	69

Nett Births registered during the calendar year	legitimate .....858 illegitimate ... 57	Nett Deaths registered during the calendar year	legitimate ... 61 illegitimate ... 8
Total .....	915	Total .....	69

Death Rate 75.      Legitimate Death Rate 71, Illegitimate Death Rate 140.



NOTES TO TABLE IV.

- a) The total in the last column of Table IV equals the total in column 10 of Table I, and in column 3 of Table III.
- (b) Under Abdominal Tuberculosis are included deaths from Tuberculous Peritonitis and Enteritis and from Tabes Mesenterica.
- (c) The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility and Marasmus, equal the total in Table III under the heading Congenital Debility and Malformation including Premature Birth.
- (d) For references to the meanings of any other headings, see notes attached to Table III.

In recording the facts under the various headings of Tables I, II, III and IV, attention has been given to the notes on the Tables.

GEO. C. BARNES,  
Medical Officer of Health.  
March, 1928.

TABLE V.

Showing the total number of Cases of Infectious Disease notified in the Borough, and the Deaths resulting therefrom, during the last 10 years (1919-1928).  
It includes the Deaths which occurred both in the Borough, and in the Borough Infectious Diseases Hospital (outside the Borough).

	NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED.											DEATHS FROM INFECTIOUS DISEASE.												
	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	Total Cases for 10 years 1919 to 1928.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	Total Deaths during 10 years 1919 to 1928.	Case Mortality (of all cases) in Borough and Borough Hospital for 10 years, 1919 to 1928.	
Scarlet Fever.....	119	199	129	168	101	107	132	122	144	123	1344	1	—	—	2	—	—	—	1	—	—	4	0.30%	
Small-pox .....	—	—	—	—	—	—	—	—	65	—	65	—	—	—	—	—	—	—	—	—	—	—	—	
Diphtheria .....	69	41	109	42	37	35	44	35	49	71	532	6	2	5	1	1	—	2	1	—	1	19	3.57%	
Typhus .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Typhoid Fever .....	7	8	13	2	7	16	4	5	7	1	70	1	1	3	—	—	1	—	1	1	—	8	11.43%	
Para-Typhoid Fever.....	—	—	1	—	2	1	—	—	1	5	10	—	—	—	—	1	—	—	—	—	—	1	10.0%	
Continued Fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Erysipelas .....	41	52	23	30	22	36	36	34	21	29	324	—	1	1	—	3	—	1	1	—	1	8	2.47%	
Puerperal Fever .....	3	6	5	1	1	3	1	2	1	—	23	—	2	1	—	—	1	1	—	—	—	5	21.74%	
Puerperal Pyrexia.....	—	—	—	—	—	—	—	—	1	6	7	—	—	—	—	—	—	—	—	—	—	—	—	
Cerebro-Spinal Meningitis	—	—	—	2	1	—	—	—	—	1	4	—	—	—	—	—	—	—	—	—	—	—	—	
Poliomyelitis .....	—	3	1	1	1	—	—	2	1	1	10	—	—	—	—	—	—	—	—	—	—	—	—	
Pulmonary Tuberculosis ...	98	91	80	104	87	101	74	83	73	82	873	61	44	42	43	52	65	44	36	41	39	467	53.49%	
Other forms of Tuberculosis	21	29	34	23	32	34	36	28	24	33	294	14	8	10	8	16	13	10	8	7	10	104	35.37%	
Ophthalmia Neonatorum...	23	20	12	7	6	11	2	3	5	3	92	—	—	—	—	—	—	—	—	—	—	—	—	
*Chicken Pox.....	269	426	412	119	307	249	372	391	348	434	3327	—	—	—	—	—	—	—	—	—	—	—	—	
*Measles .....	125	499	890	170	1064	288	672	887	401	674	5670	1	2	2	1	9	2	3	5	2	2	29	0.51%	
German Measles .....	43	44	53	26	16	23	187	45	26	27	490	—	—	—	—	—	—	—	—	—	—	—	—	
*Whooping Cough.....	79	262	293	208	121	292	240	418	118	310	2341	2	3	5	9	—	4	2	5	3	9	42	1.79%	

The following additional notifications were received :—Pneumonia (all forms) 159 ; Encephalitis Lethargica, 2 ; Malaria, 1.

\*Chicken Pox, Measles and Whooping Cough were made compulsorily notifiable in Southport in May, 1902, and Cerebro-Spinal Meningitis, Poliomyelitis and Ophthalmia Neonatorum in February, 1912.  
Measles, German Measles, and Whooping Cough :—Only the first case in a house in two months is notifiable.





TABLE VI.

Cases of certain Infectious Diseases treated in the Borough Infectious Diseases Hospitals during the last 10 years, 1919 to 1928.

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	Totals for the Ten years 1919 to 1928.
Scarlet Fever.....	90	140	94	125	84	87	102	91	114	111	1038
Small-pox .....	—	—	—	—	—	—	—	—	945	—	45
Diphtheria .....	53	31	84†	34	29	29	39	31	46	68	444
Typhoid Fever .....	1	4	8	—	1	12	—	3	5	1	35
Para Typhoid Fever...	—	—	—	—	—	—	—	—	1	3	4
Erysipelas .....	4	4	5	4	3	5	4	3	5	5	42
Puerperal Fever.....	1	3	4	—	—	—	—	1	—	1*	10
Measles .....	1	2	17	2	5	3	20	6	16	14	86
German Measles.....	2	—	1	—	—	—	7	—	—	2	12
Chicken Pox .....	1	1	—	—	—	1	9	5	1	8	26
Cerebro-Spinal Meningitis .....	—	1	—	—	—	—	—	—	—	1	2
Ophthalmia Neonatorum .....	10	5	—	3	—	—	—	—	—	—	18
Totals .....	163	191	218	168	122	137	181	140	233	214	1762
Miscellaneous Cases ...	15	22	20	10	9	22	14	7	8	29	156
Pneumonia.....	1	1	—	1	1	—	2	3	—	7	16
Polomyelitis .....	—	—	—	—	—	—	1	—	—	—	1
Puerperal Pyrexia .....	—	—	—	—	—	—	—	—	3	—	3
T.B. Meningitis .....	—	—	—	—	—	—	1	—	1	—	2
Tuberculosis .....	53	45	50*	48*	52*	50*	61*	46*	54*	96*	555
Totals .....	232	259	283	227	184	209	258	198	295	350	2405

\* Including cases from outside the District.

† Including two imported cases.

‡ Including Military cases.

SMALL-POX.—In addition to the above, there were 24 cases admitted to Sparrow Hall, making a total of 69 cases.

\* Including 4 cases from outside the Borough.

† From outside the Borough.

## DEATHS AMONG THE ABOVE.

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	Totals for the Ten years 1919 to 1928.
Scarlet Fever.....	1	—	—	1	1	—	1	1	—	—	5
Small-pox .....	—	—	—	—	—	—	—	—	—	—	—
Diphtheria .....	4	1	5*	—	2*	—	2	2*	—	1	17
Typhoid Fever .....	—	1	1	—	—	1	—	1	—	—	4
Puerperal Fever.....	—	—	1	—	—	—	—	—	—	—	1
Measles .....	—	—	—	—	1	—	—	—	—	—	1
Whooping Cough .....	—	—	—	—	—	—	1	—	—	—	1
Marasmus .....	—	—	—	—	—	—	—	—	—	—	1
Tuberculosis .....	7†	14†	5	6†	15	8†	9	10	9	12	95
Pneumonia.....	—	—	—	—	—	—	—	1	1	—	2
Erysipelas .....	1	—	1	—	—	—	—	—	—	—	2
Infantile Diarrhoea ...	—	1	—	—	—	—	—	—	—	—	1
Cerebral Haemorrhage	—	—	—	—	—	—	—	1	—	—	1
Tuberculous Meningitis	—	—	—	—	1	—	—	—	—	1	2
Capillary Bronchitis ...	—	—	—	—	—	—	—	1	—	—	1
Enterphalitis	—	—	—	—	—	—	—	—	—	—	—
Lethargia .....	—	—	—	1	—	1	—	—	—	—	2
Totals .....	13	17	13	8	20	10	13	18	9	15	136

\* Including one non-resident of Southport.

† Including 2 non-residents of Southport in 1919; 3 in 1920; 1 in 1922; and 1 in 1924.





TABLE VIII. VITAL STATISTICS—ENLARGED BOROUGH OF SOUTHPORT (INCLUDING SOUTHPORT, BIRKDALE, AND AINSDALE).  
 Note.—The figures given in this Table, except in columns distinguished as "native" or "local," are gross figures, without correction, and on that account may in some cases be found to differ from the figures given in Tables I to IV, which are corrected in accordance with the requirements of the Ministry of Health, as stated in the notes appended to them.

with the requirements of the Ministry of Health, as stated in the notes appended to them.																																						
BIRTHS.			DEATHS.					DEATHS FROM														DEATHS OF PERSONS AGED.										ANNUAL RATES PER THOUSAND LIVING.						Population (Estimated to Middle of Year.)
Year.	Male.	Female.	Male.	Female.	Resident more than One Year.	Resident less than One Year.	Not Living Imported.	Seven Years' Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Cholera and Choleraic Disorders.	Diseases of the Respiratory Organs.	Phthisis.	Venereal.	Imported Phthisis.	Imported Diseases of Respiratory Organs.	Deaths in Public Institutions.	Deaths under One Year of Age in 1900.	0-1.	1-5.	5-15.	15-25.	25-40.	40 and upwards.	Births.	Deaths, Gross.	Deaths, Local.	Deaths, Foreign.	Deaths, Native.	Deaths, Foreign, Gross.	Deaths of Respiratory Organs, Local.	Deaths of Respiratory Organs, Foreign.	
1912	526	502	439	459	787	102	88	22	—	6	1	10	3	2	—	—	129	55	25	12	11	87	77	79	38	33	23	239	457	14.55	12.58	11.94	-31	-61	1.83	1.67	70,640	
1913	524	539	406	480	791	95	87	88	—	3	1	2	5	1	26	—	137	52	26	9	14	73	92	98	30	14	31	249	464	14.95	12.46	11.24	-53	-60	1.93	1.73	71,092	
1914	505	511	449	525	886	88	64	33	—	10	1	5	8	1	8	—	178	50	23	7	9	100	104	106	49	23	23	264	509	14.16	13.58	12.68	-46	-60	2.48	2.36	71,747	
1915	486	491	456	574	932	98	77	26	—	5	6	8	5	—	2	—	164	49	31	7	5	85	90	88	46	35	35	293	533	13.63	15.20	14.06	-38	-62	2.42	2.35	67,700	
1916	518	495	441	565	851	95	72	41	—	21	1	15	—	—	4	—	142	47	24	8	11	79	83	84	52	32	25	245	568	14.06	14.12	13.04	-61	-58	2.19	1.96	67,000	
1917	390	395	378	517	806	89	72	13	—	—	3	3	4	1	2	—	130	51	25	6	13	83	80	63	44	28	30	234	496	10.95	13.56	12.47	-20	-68	2.00	1.77	66,000	
1918	404	372	465	579	927	117	83	22	—	4	2	3	3	2	8	—	148	51	16	13	14	88	61	47	55	45	64	335	498	10.82	15.79	14.56	-33	-58	2.24	2.03	66,000	
1919	446	431	476	562	961	77	60	24	—	2	1	6	2	1	12	—	160	51	30	1	10	103	98	82	36	26	53	332	509	12.23	14.83	14.01	-33	-71	2.29	2.14	70,000	
1920	662	597	438	477	889	26	17	14	—	2	—	1	3	1	7	—	125	46	28	7	15	87	54	68	22	24	33	282	486	17.23	13.07	12.11	-20	-56	1.79	1.57	70,000	
1921	554	566	411	488	874	20	16	25	—	2	—	6	5	2	10	—	129	38	26	7	2	96	66	74	29	15	34	244	496	15.58	12.43	12.21	-35	-43	1.79	1.77	71,900	
1922	538	468	441	501	927	15	15	18	—	1	2	1	9	—	5	—	163	42	32	3	1	92	59	59	32	19	43	243	546	13.97	13.78	12.87	-25	-54	2.26	2.23	72,920	
1923	514	498	438	502	929	11	10	20	—	9	—	2	—	—	9	—	159	55	26	7	8	98	63	64	40	14	26	250	546	13.98	12.98	12.84	-28	-66	2.20	2.09	72,410	
1924	505	447	431	546	959	18	16	11	—	2	—	—	5	1	3	—	155	65	32	9	11	95	63	56	35	12	31	253	590	12.93	13.26	13.02	-15	-76	2.10	1.95	73,650	
1925	500	488	401	479	845	35	41	9	—	2	—	3	2	—	2	—	146	37	26	2	10	85	58	58	26	12	25	221	538	13.30	11.85	11.80	-12	-47	1.97	1.83	74,260	
1926	471	472	412	475	825	62	17	15	—	6	1	2	5	1	—	—	119	35	36	4	12	93	63	60	21	13	26	233	532	12.09	11.37	10.58	-19	-40	1.52	1.37	77,970	
1927	492	481	462	540	935	62	5	5	—	1	—	—	3	1	3	—	170	38	33	4	9	134	48	47	15	12	24	262	642	12.37	12.74	11.95	-66	-43	2.16	2.05	78,670	
1928	475	482	429	573	931	71	4	13	—	2	—	1	9	—	1	—	154	35	32	1	13	111	75	72	34	13	23	240	620	12.07	12.64	11.74	-16	-43	1.96	1.78	79,290	

(For the years 1871-1911 see Report for year 1915).



THESE RESULTS ARE THE PROPERTY OF THE BUREAU OF THE ARMY AND NAVY  
 AND ARE NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE  
 EXPRESS WRITTEN PERMISSION OF THE SECRETARY OF THE ARMY

Year	Month	Day	HEALTH				MILITARY			
			Weight	Height	Temperature	Pulse	Weight	Height	Temperature	Pulse
1912	1	1	150	58	98.6	72	150	58	98.6	72
1912	1	2	150	58	98.6	72	150	58	98.6	72
1912	1	3	150	58	98.6	72	150	58	98.6	72
1912	1	4	150	58	98.6	72	150	58	98.6	72
1912	1	5	150	58	98.6	72	150	58	98.6	72
1912	1	6	150	58	98.6	72	150	58	98.6	72
1912	1	7	150	58	98.6	72	150	58	98.6	72
1912	1	8	150	58	98.6	72	150	58	98.6	72
1912	1	9	150	58	98.6	72	150	58	98.6	72
1912	1	10	150	58	98.6	72	150	58	98.6	72
1912	1	11	150	58	98.6	72	150	58	98.6	72
1912	1	12	150	58	98.6	72	150	58	98.6	72
1912	1	13	150	58	98.6	72	150	58	98.6	72
1912	1	14	150	58	98.6	72	150	58	98.6	72
1912	1	15	150	58	98.6	72	150	58	98.6	72
1912	1	16	150	58	98.6	72	150	58	98.6	72
1912	1	17	150	58	98.6	72	150	58	98.6	72
1912	1	18	150	58	98.6	72	150	58	98.6	72
1912	1	19	150	58	98.6	72	150	58	98.6	72
1912	1	20	150	58	98.6	72	150	58	98.6	72
1912	1	21	150	58	98.6	72	150	58	98.6	72
1912	1	22	150	58	98.6	72	150	58	98.6	72
1912	1	23	150	58	98.6	72	150	58	98.6	72
1912	1	24	150	58	98.6	72	150	58	98.6	72
1912	1	25	150	58	98.6	72	150	58	98.6	72
1912	1	26	150	58	98.6	72	150	58	98.6	72
1912	1	27	150	58	98.6	72	150	58	98.6	72
1912	1	28	150	58	98.6	72	150	58	98.6	72
1912	1	29	150	58	98.6	72	150	58	98.6	72
1912	1	30	150	58	98.6	72	150	58	98.6	72
1912	1	31	150	58	98.6	72	150	58	98.6	72

**RETURN** relating to all persons who were treated at the Treatment Centre at Southport during the year ended the 31st December, 1928.

	Syphilis.		Soft Chancre.		Gonorrhoea.		Conditions other than Venereal.		TOTAL.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of cases which— (a) at the beginning of the year under report were under treatment or observation for .....	106	75	1	—	182	86	36	44	825	205
(b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection.....	2	1	—	—	5	11	3	1	10	13
TOTAL—Items 1 (a) and 1 (b) .....	108	76	1	—	187	97	39	45	835	218
2 (a). Number of cases dealt with at the Treatment Centre during the year for the first time .....	51	24	2	1	106	29	47	54	206	108
TOTAL—Items 1 (a), 1 (b) and 2 (a)....	159	100	3	1	293	126	86	99	541	326
2 (b). Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection .....	1	1	—	—	4	1	—	—	5	2
3. Number of cases which ceased to attend— (a) before completing the first course of treatment for .....	1	1	—	—	—	—	—	—	1	1
(b) after one or more courses but before completion of treatment for .....	2	1	—	—	—	—	—	—	2	1
(c) after completion of treatment, but before final tests as to cure of.....	6	3	—	—	7	8	11	—	24	11
4. Number of cases transferred to other Treatment Centres after treatment for .....	9	4	—	—	22	9	—	2	31	15
5. Number of cases discharged after completion of treatment and observation for .....	5	5	1	—	46	18	40	40	92	63
6. Number of cases which, at the end of the year under report, were under treatment or observation for .....	186	86	2	1	218	91	35	57	391	235
TOTAL—Items 3, 4, 5 and 6 .....	159	100	3	1	293	126	86	99	541	326
7. Out-patient attendances— (a) For individual attention by the Medical Officer.....	1155	828	35	6	1787	728	238	205	3215	1762
(b) For intermediate treatment, e.g., irrigation, dressings, etc. ....	117	919	12	8	2264	3370	130	523	2523	4820
TOTAL ATTENDANCES.....	1272	1742	47	14	4051	4098	368	728	5738	6582
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from.....	439	471	—	7	139	620	78	300	656	1308
9. Examinations of Pathological material :— (a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre.....					No record kept.					
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory .....			1		873 Smeared 38 Urines 11 Cultures		1 Urine Culture 2 Pus. 1 Van den Bergh		4 C.S.F.'s 427 Wassermann	



1. The first part of the paper is devoted to a general discussion of the problem.

2. In the second part we shall consider the case of a single particle.

3. The third part is devoted to the case of a system of particles.

4. In the fourth part we shall consider the case of a continuous medium.

5. The fifth part is devoted to the case of a system of continuous media.

6. In the sixth part we shall consider the case of a system of particles and continuous media.

7. The seventh part is devoted to the case of a system of particles and continuous media.

8. In the eighth part we shall consider the case of a system of particles and continuous media.

9. The ninth part is devoted to the case of a system of particles and continuous media.

10. In the tenth part we shall consider the case of a system of particles and continuous media.

11. The eleventh part is devoted to the case of a system of particles and continuous media.

12. In the twelfth part we shall consider the case of a system of particles and continuous media.

13. The thirteenth part is devoted to the case of a system of particles and continuous media.

14. In the fourteenth part we shall consider the case of a system of particles and continuous media.

15. The fifteenth part is devoted to the case of a system of particles and continuous media.

16. In the sixteenth part we shall consider the case of a system of particles and continuous media.

17. The seventeenth part is devoted to the case of a system of particles and continuous media.

18. In the eighteenth part we shall consider the case of a system of particles and continuous media.

19. The nineteenth part is devoted to the case of a system of particles and continuous media.

20. In the twentieth part we shall consider the case of a system of particles and continuous media.

21. The twenty-first part is devoted to the case of a system of particles and continuous media.

22. In the twenty-second part we shall consider the case of a system of particles and continuous media.

23. The twenty-third part is devoted to the case of a system of particles and continuous media.

24. In the twenty-fourth part we shall consider the case of a system of particles and continuous media.

25. The twenty-fifth part is devoted to the case of a system of particles and continuous media.

26. In the twenty-sixth part we shall consider the case of a system of particles and continuous media.

27. The twenty-seventh part is devoted to the case of a system of particles and continuous media.

28. In the twenty-eighth part we shall consider the case of a system of particles and continuous media.

29. The twenty-ninth part is devoted to the case of a system of particles and continuous media.

30. In the thirtieth part we shall consider the case of a system of particles and continuous media.

TABLE IX (Continued).—VENEREAL DISEASES.

Statement showing the services rendered at the Treatment Centre during the year, classified according to the area in which the patients resided.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.	Wallaasey.	Liverpool.	Blackpool.	Bury.	Southampt'n.	Wigan.	Manchester.	Lancashire.	Southport.	TOTAL.
A. Number of cases from each area dealt with during the year <i>for the first time</i> and found to be suffering from :—										
Syphilis.....	—	—	—	—	1	1	—	8	65	75
Soft Chancre .....	—	—	—	—	—	—	—	1	2	3
Gonorrhoea .....	1	2	1	—	—	—	1	21	109	135
Conditions other than venereal.....	—	—	—	1	—	1	2	4	93	101
TOTAL.....	1	2	1	1	1	2	3	34	269	314
B. Total number of attendances of all patients residing in each area.....	2	41	7	1	2	10	51	911	11295	12320
C. Aggregate number of "In-patient days" of all patients residing in each area.....	—	—	—	—	—	11	113	118	1812	2054
D. Number of doses } 1. Out-patient Clinic of arsenobenzol } compounds given } in the :— } 2. In-patient Dept. to patients residing in each area.	—	—	—	—	1	3	—	123	994	1121
E. Names of arsenobenzol compounds used in the treatment of syphilis and the usual initial doses.	—	—	—	—	—	—	—	21	349	370
F. Amount and kind of treatment usually administered to a case of syphilis of each of the types usually dealt with at the Treatment Centre.	<p>N.A.B. 45-75; Sulfarsenol, Silber Salvarsan 1 gr.—3 grm. Neo Trepol, Spirellen Stabilsarsan, Bismuth Salts, and Bismostol, Khar Sulphan—Neo Khars.</p> <p>PRIMARY. One course of Arsenical Compounds to a total of 4 grams, nine injections of Hg or Bismostol (each injection=1 grm.). One month on Mist. KI; two months on Hg in the form of pills. Then a second course of arsenical compounds total of 4 grms. This is followed by KI and Hg for three months. Periodic exams. and Wassermann tests, and continuance of Hg extending over 2 years. SECONDARY and LATE PRIMARY. Same course as above except 3 courses are given over a period of 16 months independently of what Wassermann reaction shows—a total of 12 grms. of arsenobenzol compounds. Alternating with Hg by the mouth, or by injection. Patients are then kept under observation (when possible) for two years. TERTIARY AND PARA-SYPHILITIC. Patients are treated with Silber Salvarsan in small doses extending over a long period, weekly injections for 3 or 4 months then KI for some months, then the Silber Salvarsan course repeated.</p>									
G. Nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page.	<p>SYPHILIS. After treatment and being under observation for at least 2 years, more frequently 3 years, absence of all clinical manifestations, and negative tests for at least 12 months, after provocative tests.</p> <p>SOFT CHANCERE. All sores healed. Under observation, examinations, and periodic 12 months tests to avoid possibility of Syphilis.</p> <p>GONORRHOEA.—1. FEMALES. Examinations, Cultures, and smears taken and provocative tests given every two months after completion of treatment for 12 months and longer if possible. 2. MALES. Discharges ceased, smears from follicles, prostate, vesicles, and urine deposits before and after provocative tests show absence of G'ci. and pus, re-examination 2 months after completion of curative treatment. Urethroscopy examination must show no thickening of mucous membrane of Urethra or tendency to abscess. In very chronic or Rheumatic cases Complement Fixation tests are used as control of treatment.</p>									

(Signed) HENRY BARDSLEY, M.R.C.S., L.R.C.P.,

Medical Officer of the Treatment Centre.



