#### [Report 1921] / Medical Officer of Health, St Annes-on-the-Sea U.D.C.

#### **Contributors**

St. Annes-on-the-Sea (England). Urban District Council.

#### **Publication/Creation**

1921

#### **Persistent URL**

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Urban District Council of St. Annes-on-the-Sea.

# ANNUAL REPORT

FOR 1921

by

JOHN TENNANT, M.A., M.D., F.R.C.S., Edin. MEDICAL OFFICER OF HEALTH,

together with the

# ANNUAL REPORTS

of

J. R. RIGBY, M.R.C.V.S. VETERINARY INSPECTOR.

and

WILLIAM E. PROCTER, C.R.S.I., C.M.S.I.A. CHIEF SANITARY INSPECTOR.

ST. ANNES-ON-THE-SEA:
J. ROBERTSON & CO., LTD., ST. LEONARD'S ROAD.
1922.

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# ANNUAL REPORT

On the Health of the Urban District St. Annes-on-the-Sea.

TO THE CHAIRMAN AND MEMBERS OF THE URBAN DISTRICT COUNCIL OF St. Annes-on-the-Sea.

#### GENTLEMEN,

In Circular 269, 28th December, 1921, issued from the Ministry of Health, instructions are set out for the preparation of the annual reports of Medical Officers of Health, which differ materially from those of former years.

It is now required that an annual report of a full and detailed character (referred to in the circular as a "Survey Report") should be issued at intervals of not more than five years, and that in other years an annual report of a simpler character (" ordinary report") should be prepared. The annual reports of 1919 and 1920 will be treated as constituting the first of the series of Survey Reports. The present report which I have the honour of presenting will be an ordinary report, and certain details will be omitted from it which have been included in those of former years.

#### General Statistics.

Area (acres)	3,337
Population (1921)	10,520
No. of inhabited houses (1921)	2,487
No. of families, or separate occupiers (1921)	
Rateable value£128,256 1	5s. 0d.
Sum represented by a penny rate	£488

#### Extracts from Vital Statistics of the Year.

Births— Male F	emale
Legitimate (116)	69
Illegitimate (6) 3	3
Birth-rate (R.G.)—11.5.	
Deaths (119) 59	60
Death-rate (R.G.)—11.2.	
No. of women dying in or in consequence of childbirth—	
From sepsis	2
From other causes	****
Deaths of infants under 1 year of age per 1,000 births—	
Legitimate	8
Illegitimate	2
Total	10
Deaths from Measles (all ages)	1
Deaths from Whooping Cough (all ages)	
Deaths from Diarrhœa (under 2 years of age)	2

It will be observed that the number of births (122) has greatly declined from the 142 registered as occurring in 1920. It is still in excess of the average for the preceding 10 years, and this excess possibly reflects an increase in the population.

The number of people enumerated in St. Annes on the 19th of June, when the census was taken, was 15,041. The Registrar-General, in his memorandum on the subject, recognises that the lateness of the census date vitiated somewhat the correctness of the enumeration in the case of small holiday resorts such as this, rendering the inclusion of considerable non-resident elements inevitable, and that, for this reason, the use of the census figure for the preparation of vital statistics would be fallacious. He has made an

adjustment by means of the best data at his disposal, and arrived at 10,520 as the figure most probably representing the resident population of St. Annes at the middle of 1921. From locally obtained data, in my report for 1920 I estimated the population at the middle of 1920 as 10,733, as against the Registrar-General's estimate of 9,941. A similar computation on the present occasion places the population at the middle of 1921 at 10,972, as against the Registrar-General's 10,520.

The birth-rate, calculated on the official figures, was 11.5, being an increase of 0.5 on the average of the preceding 10 years. The nett number of deaths was 119, and the nett death-rate 11.2, a decrease of 0.8 on the average of the preceding 10 years.

The infantile death-rate was 81 per 1,000 births, and considerably larger than the average.

The death-rate from phthisis was 0.47 per 1,000 of the population. One death occurred from Measles, one from Scarlet Fever, two from Diphtheria, and two from Infantile Diarrheea.

#### Notifiable Infectious Disease.

Diphtheria was much less prevalent than in recent years. There were nine cases, with two deaths. In 1920 there were 35 cases, with six deaths. Sixty thousand units of antidiphtheritic serum were supplied at public expense for these cases, and for contacts whom their medical advisers wished to treat in this manner.

Of Scarlet Fever there were 66 cases, as against 105 in 1920 and 32 in 1919. The epidemic of 1920 did not materially abate until April, 1921, after which sporadic cases continued throughout the year.

There was an unfortunate outbreak at the Ormerod Home, where a little boy sickened on August 25th, having only been admitted a few days before. Up to September 28th 13 cases traceable to this boy occurred in the home.

In my report a year ago I gave some account of a long outbreak of diphtheria in the Ormerod Home, which I attributed to overcrowding. The house at that time contained 120 children, and I advised the lady superintendent not to have more than 90 at one time. On this occasion I found the number of children in the home to be 126, of whom, however, eight were accommodated in the "sanatorium." The outbreak did not stop until all the children had been sent home, and the building emptied and disinfected all over. Most of the books and toys were destroyed. It involved a great deal of work for the Sanitary Staff. All the dormitories were measured, and a card was supplied and affixed in each room specifying the number of cots it may contain. Approximately 500 cubic feet was given to each cot. This is a very small space, but I believe the place is well and continuously ventilated during occupation. The children are admitted under a medical certificate, somewhat laxly worded, which I caused to be altered.

It was also arranged that every child should be examined at St. Annes by a medical man within 24 hours of arrival, and that lists of such children, with the nature of the illness of each, signed by the medical man, should be sent to me every week.

#### Tuberculosis.

Fifteen cases of pulmonary and two of non-pulmonary tuberculosis were notified. No death of tuberculosis occurred without previous notification of the case. Notification of pulmonary tuberculosis is well carried out in the district. Other forms of tuberculosis are not notified so punctually. No action has been taken in the matter, except by a circular letter to the practitioners.

#### Causes of Sickness.

There has been no notable outbreak of any disease. Influenza in particular has been moderate in its incidence.

#### Nursing, etc.

There is a Sick Aid Society in the district, which employs one nurse, whose services are generally sufficient for the poor. The local authority has not contributed to the cost of nursing during 1921.

#### Midwives.

One registered Midwife practises in the district. There are no clinics or treatment centres under the control of the local authority.

#### Hospitals.

The local authority subsidise the Fylde Joint Hospital for Infectious Diseases, containing 48 beds and 12 cots, to which most of the cases of Diphtheria and Scarlet and Typhoid Fevers are sent; and a Smallpox Hospital at Elswick, where there are 15 beds. For accidents and general sickness patients have to find hospital treatment outside the district, chiefly at Blackpool, Preston and Manchester. There is no institutional provision for unmarried mothers, illegitimate infants, or homeless children in the district.

#### Ambulance Facilities.

There is a horse ambulance maintained by the local authority for non-infectious cases. The fever hospital sends its own ambulance for infectious cases consigned to it.

# Laboratory Work.

Bacteriological examinations, chiefly in cases of suspected diphtheria, phthisis, and enteric fever, and of milk were carried out by arrangement at the Public Health Laboratory, York Place, Manchester, under the supervision of the late Professor Delepine. In all four specimens of blood serum were examined, 12 of expectoration, and 36 of swabs from throats. Fourteen specimens of milk were examined for tuberculosis, and tubercle bacilli were discovered in one of them. This was from a cow which Mr.

Rigby suspected of tuberculosis of the udder on clinical grounds. Sixty thousand units of diphtheric antitoxin were supplied gratuitously for the use of poor people suffering or suspected of suffering from diphtheria.

Several phials of influenza vaccine supplied in 1920 by the Health Ministry were issued to practitioners in the district, and the stock is now exhausted. I have not obtained full reports as to its efficacy, but the fragmentary reports to hand are not favourable.

The following adoptive Acts are in force in the district:—The Public Health Acts Amendment Acts of 1890 and 1907. Local Acts in force are the St. Annes-on-the-Sea Improvement Acts of 1896, 1914 and 1920.

#### Sanitary Administration.

A tabular summary of the work of the Sanitary Department during the year will be found in the annexed report of Mr. Procter, the Sanitary Inspector.

#### Public Health Staff.

The staff comprises myself, Mr. W. E. Procter, C.R.S.I., C.M.S.I.A., Miss Hibberson, a lady clerk, and Mr. Robert Charlton, a junior assistant, who is being trained to become a sanitary inspector.

# Housing.

Eighty-one new houses were erected during the year by private enterprise, and 12 as part of a municipal housing scheme.

## Unfit Dwelling-Houses.

- 1. Twenty-two houses were inspected for defects under the Public Health or Housing Acts.
- 2. Inspection of dwelling-houses under the Housing Regulations, 1910, was completed in 1920, and the particulars of the inspections have been entered fully.
- 3. No houses were found in a state so dangerous or injurious to health as to be unfit for habitation.

4. Five houses were found to be not in all respects reasonably fit for human habitation.

All of these were rendered fit in consequence of informal action by the Sanitary Inspector.

# Action under Statutory Powers.

Proceedings under Section 28 of the Housing, Town Planning, etc., Act, 1919	0
Proceedings under Public Health Acts-	
Number of houses in respect of which notices were served requiring repairs	2
Number of dwelling-houses which were rendered fit-	
By owners	5 0
Proceedings under Sections 17 and 18 of the Housing, Town Planning, etc., Act, 1909	0
Number of houses demolished voluntarily by owners or converted into workshops, etc.	0

I have the honour to be, Gentlemen,

Your obedient servant,

JOHN TENNANT,

Medical Officer of Health.

# ANNUAL REPORT

OR THE

# VETERINARY INSPECTOR

J. R. RIGBY, M.R.C.V.S.

TO THE CHAIRMAN AND MEMBERS OF THE URBAN DISTRICT COUNCIL OF St. Annes-on-the-Sea.

GENTLEMEN,

I have the honour to present to you a report on my work as Veterinary Inspector of Cattle, Cowsheds, and Dairies during 1921.

I have made quarterly examinations of all cattle on farms within your district, examining on an average about 290 cattle at each inspection. In addition to these regular examinations, further visits have been made when necessary for the purpose of observing the progress of sick animals and of removing restrictions when the use of milk has been temporarily suspended.

My examinations are directed to the detection of any condition affecting the cattle or their surroundings likely to affect the purity of the milk. At each inspection I have found it necessary to stop the use of milk from certain animals, generally on account of some affection of the udder, which in cattle is liable to injuries of various kinds. Troubles of this nature were less prevalent than usual, and, owing to the dry weather which prevailed during the greater part of the year, constitutional disturbances were rare.

The incidence of tubercular affections was comparatively low. Tubercular bacilli were found in a sample of milk taken from a suspected udder, and four cattle were found suffering from tuberculosis of the lungs. All these animals were disposed of. As fresh animals are constantly being added to the milking stocks, it is impossible to keep the herds free from this disease, but the periodical inspection ensures the removal of affected animals before they can do much harm.

Due regard has been paid to hygienic conditions. The interior parts of the cowsheds were limewashed twice during the year, and, when necessary, instructions have been given regarding the grooming of any cattle requiring attention.

In my last Annual Report I stated that the cowsheds might be improved as regards their lighting, ventilation and paving. Many of the more grave defects have now been remedied, but much remains to be done in this respect.

There has been no important innovation in milk legislation during the year. The Milk and Dairies (Consolidation) Act of 1915 and the Milk and Dairies Act, 1920, have not yet come into operation, their application having been deferred pending the passage of a further Amending Bill, one of the main provisions of which is the power to grade milk. This Bill appears to be based on the report of the Astor Committee, in which the grading of milk is strongly advocated, and its existence appears to indicate that the early introduction of an official system of grading is contemplated by the central health authorities.

I have the honour to be, Gentlemen,

Your obedient Servant,

J. R. RIGBY, M.R.C.V.S.

# ANNUAL REPORT

of the

# CHIEF SANITARY INSPECTOR

WILLIAM E. PROCTER, C.R.S.I., C.M.S.I.A.

To the Chairman and Members of the Urban District Council of St. Annes-on-the-Sea.

GENTLEMEN,

I have the pleasure of presenting to you my twentieth Annual Report for the year ending 1921.

At the beginning of the year you appointed Mr. Robert Charlton as Junior Assistant Inspector, and he has carried out his duties admirably, and is at the same time studying the various subjects connected with his sphere of vocation. Miss Alice Hibberson, as clerk, gives valuable assistance in addition to the clerical work.

The year has been a busy one as regards public health work, and the extensive building operations demanded of the Department the inspection as to the sanitary fitness of new dwellings; also the alterations to old buildings requiring supervision when these have necessitated the removal or alteration of sanitary fittings, relaying of drains, or other work which might play havoc with the health of the occupiers, unless supervised at the time the operations were in progress. Advice as to the best methods for dealing with the matters in hand has been given, so that the best hygienic conditions would be paramount.

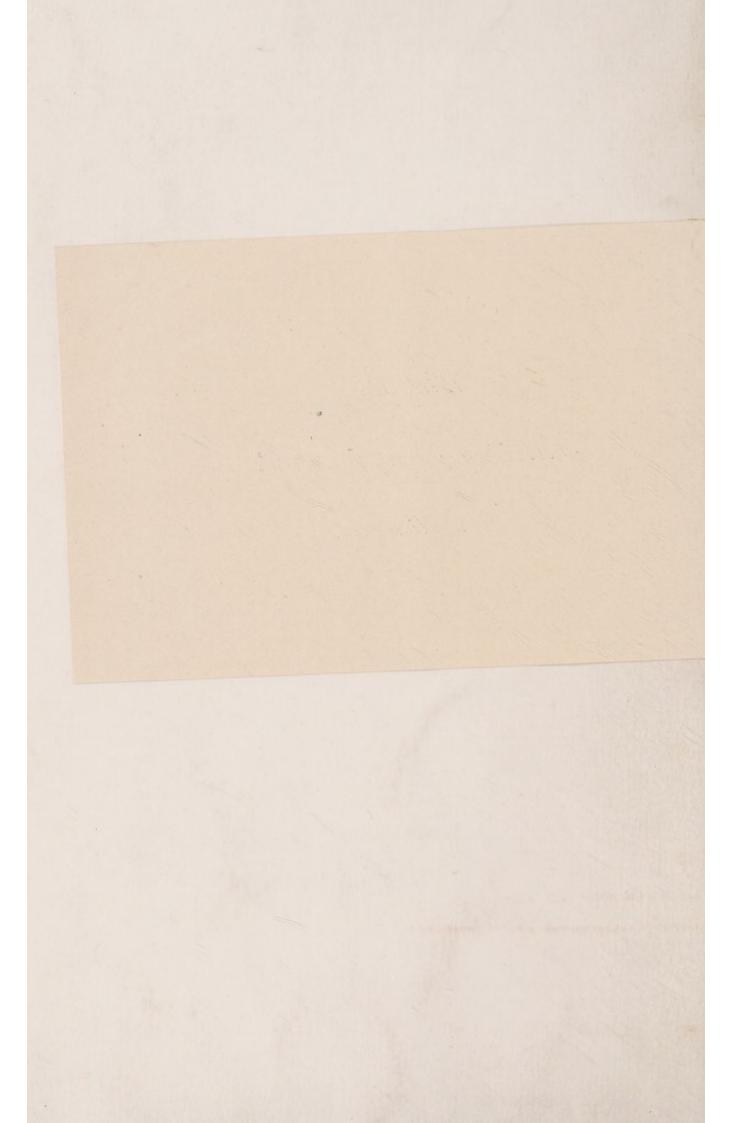
#### Nuisances.

Three hundred and fifteen nuisances have been located, and 301 of these were remedied, the remainder (14) being in course of abatement.

With the

Sanitary Inspector's

Compliments.



	Number
Black Smoke	1
Blocked Drains	3
Blocked Gully	1
Blocked Water Closet	1
Dampness in Ceilings	5
Dampness in Walls	21
Defective:—	
Bath and Lavatory Waste Pipes	6
Ceiling	1
Chimney	1
Closet Pails	3
Dish-bricks to Gullies	2
Downspouts	6
Drains:	
Bath and Lavatory	- 4
Downspout	6
House	4
Slop Water	
Wash-house	
Water Closet	
Yard	3
Dust Bins	95
Fire Ranges	10
Floors	
Gas Fittings	
Hot Water Apparatus	
Inspection Chambers	
Manure Pits	
Roofs	
Slop Water Pipes	
Soil Pipes	
Troughings	
Walls	
Water Closets	
Water Closet Fittings	
Water Pipes	
Window Frames, Sills, and Cords	
Yards	
1910	Т
Insanitary:	
Bedding	. 1
Fish Refuse Bins	. 2
Houses	
Stables	
Water Closets	. 4
Yards	6

		Number
Insufficient	Dust-bin	. 1
,,	Light	1
- ,,	Ventilation	. 1
,,	Water Closet Accommodation	. 1
Offensive A	ceumulations	. 2
Waste Wat	er Lodging	. 1

Nine hundred and forty-five inspections and reinspections were made during the completion of the work of abatement of these nuisances.

#### Legal Notices.

It has only been necessary to serve four legal notices for the abatement of nuisances, showing that both owners and occupiers of property are amenable to the demands of the Health Department, also revealing the fact that personal interviews play an important part in assisting those responsible to concur with the efforts of the Department to rectify insanitary conditions.

#### Informal Notices.

Five hundred and twenty-eight informal notices in the form of letters have been forwarded to persons intimating the need of attention to sanitary defects of a minor or major character. In almost every instance it is gratifying to know that due regard was given to these notices and celerity in these matters all tend to safeguard the welfare of the town by keeping on a high level the standard of public health.

#### Consultations.

Having had almost a quarter of a century in the public health service, each year makes me more convinced than the last of the large amount of consultative duty a sanitary inspector is called upon to perform. He must be prepared to meet owners, occupiers, lawyers, craftsmen, butchers, farmers, and many other persons. He must be saturated with public health law, so that he is able to justify his demands upon those with whom he converses.

He must understand the hygienic methods of plumbing, joinering, bricklaying and building construction. He must be able to justify his attitude to food purveyors when dealing with unsound food.

He has to be just to the owner, and yet safeguard the health of the occupier. Whatever an inspector's qualifications are, he should be a man who is capable of taking a reasonable view of matters as they are presented to him, not forgetting to see the aspect from both sides. My experience is that consultations have done more towards the progress of public health than any other measures adopted. It is the personal element where the interview convinces your consultant of the question under review—whether by sound reasoning or practical demonstration. It may interest you to know that my individual consultations respecting public health during the year numbered 2,504.

#### Scavenging.

The following work in the Scavenging Department was carried out under my supervision. A similar table for 1920 is shown for comparison:—

	1920.	1921.
Dust Bins emptied	132,252	 133,319
Privy Pails emptied in		
country district	2,032	 1,989
Dust Bins and Water Closets		
disinfected	5,252	 6,103
Loads of Refuse taken to		
Destructor	3,278	 3,220
Loads of Refuse taken to		
Tip		 
Dead Animals found on shore	27	 21

## Drains and Inspection Chambers.

Drains are tested with a smoke machine, and if any defects are located the owner is communicated with to repair or re-construct the drains according to the nature of the defect. There is a tendency on the part of some builders to build an inspection chamber to the drains, cover with a stone flag, which is then covered with soil. It is imperative that an inspection chamber should be erected level with ground surface, and then provided with iron frame and movable iron cover to facilitate access to drain.

#### Sanitary Conveniences.

This list of sanitary conveniences shows an ever increasing number of fresh water closets over every other class:—

Fresh Water Closets	4,871
Waste Water Closets	21
Privies (fixed) in rural portion of district	
Privy Pails (movable) do	48
Portable Circular Galvanized Dust Bins	2,501

#### House-to-House Inspections.

Twenty-two house-to-house inspections were made under the powers contained in the Public Health Acts. At five of the houses there were found defective yards, W.C.'s, roofs, and slop water pipes.

The owners were notified, after which they rectified the defects.

## Housing (State-Aided Houses).

There is still a dearth of houses in the town, and in a very small degree this shortage will be improved by the erecting of the Council's "State-aided houses" in course of construction. To ascertain the conditions under which applicants for these Council houses were living, surprise visits were made at 40 selected houses.

On my own initiative Miss Hibberson accompanied me, with the idea that she may see the home conditions from a woman's standpoint, and the result was a real success. The following report, apart from the tabulated list, gives an indication of the breadth and scope of the inspections, also showing the great care exercised by the Council to obtain satisfactory tenants.

"Acting upon your instructions, full particulars have been obtained by Miss Hibberson and myself as to the size of rooms and the conditions under which the selected forty applicants for the State-aided houses are at present living. The attached list gives the names, addresses, number of males, females, relationships, ages, together with the cubic capacity of bedrooms. Some were found to be over-crowded, others in dirty condition, whilst the factors regarding physical and moral health of the inmates were also obtained. In a few instances most deserving cases were in overcrowded houses, but unfortunately the insanitary conditions prevailing should debar applicants as being suitable tenants for the new houses.

"Particulars given upon forms are often quite misleading when compared with the actual facts. Our visits proved this to be true in some instances, and what were apparently necessitous cases showed in no uncertain manner to be those least deserving of a new house.

"Re-arrangements as to the persons sleeping in rooms would improve the conditions under which some inmates are living, and if new houses were allocated to those applicants the old houses would soon be overcrowded, because the tenants would take advantage of the rooms left at liberty.

"The moral standard will be elevated by allowing certain applicants to have houses. In selecting twelve applicants consideration should certainly be given as to suitability of each one individually, and also as to the effect of the whole of the twelve tenants when living in close proximity one with another."

#### Rent Restriction Act.

One judge has justly remarked, "This Act has caused more bitterness between landlord and tenant than any other Act."

This bitterness was bound to arise, especially owing to scarcity of houses. The landlord knew he could let his house; the tenant was aware of certain safeguards for himself in the Act.

A town in the making and without great industries is more or less of a cosmopolitan centre, and St. Annes-onthe-Sea is no exception to this rule, so that during the past few years many outsiders have bought tenanted houses for reasonable sums of money, and then there has been all kinds of pressure brought to bear upon the tenants to vacate the premises. In most of these cases the services of the Sanitary Inspector were sought to assist in the elimination One indefatigable lady purchaser of the inmates. succeeded where others had failed. She found the tenants and sub-tenants houses and rooms, only to be met from time to time with refusals to accept the alternative accommodation, but with that determination and persistency she partly purchased an empty house and took rooms for the sub-tenant in a distant town. Their furniture was removed, and she went by train and saw them installed in their new dwellings. The one salient feature or outcome of the Act has induced many tenants to become owners of the houses they have lived in for years as tenants. In this way they appreciate what a landlord has done for them previously, and they also endeavour to protect their home.

It is almost a daily occurrence to receive intimations as to the sanitary condition of houses prior to purchase by intending buyers, thus giving an idea of the large number of persons who become owners of the houses they live in. **Population.** 

The Government census taken during the year showed a population of 15,041. If spread equally over the whole district, this represents approximately six persons per house. On this basis the number of houses and the population of each ward would be as follows:—

Name of	Ho	uses						
Ward.	Occupie	d. E	mp	ty.	Total.	P	opulation.	
North								
South	923		6		929		5568	
East	743		1		744		4488	
West	285		4		289		1739	
	-		-		-			
	2487		14		2501		15041	

#### Privies.

The number of fixed privies is 19 and of movable privy pails 48. All these are in connection with remote houses in outlying districts and not within reach of the sewers.

#### Dust Bins.

There are 2,501 Dust Bins in use, and these are of a circular galvanized iron type, with fixed metal handles on each side and loose covers, with rims overlapping the top outer edge of the bin, so that rain water falls outside the bin. Each have a capacity of about two cubic feet. There is uniformity in the type of bin provided, and the Council have powers to enforce such a standard bin in their Private Improvement Act, 1914.

#### Manure Pits.

Although the progress of motors has been phenomenal, there are still a few horses left, and the manure from the stables is only allowed to remain in the manure pits for a period of seven days. Horse owners are now fully alive to the necessity of quick removal of manure, so as to diminish the fly pest. Flies remained longer during the year because of the mild autumn, although they are less plentiful than they were years ago.

#### Farms.

Quarterly inspections were made at the twenty farms. Some of the cowsheds were deficient in light, ventilation, air space, and others had defective floors, channels, and drains. On drawing the attention of the agent to these matters, he accompanied me on a round of visits to the cowsheds, taking careful note of the defects, after which he had them remedied. The cowsheds at one farm are deficient in many sanitary respects, and rather than put the owner to the expense of temporary repairs it was left in abeyance pending an opportunity to erect suitable and up-to-date cowsheds.

#### Schools.

The four elementary day schools have been periodically visited. Examination of the sanitary conveniences and fittings revealed three slight defects, and these were afterwards remedied.

On two occasions the conveniences were due for limewashing, and this work was soon dealt with.

#### Bakehouses.

Visits were paid to the 17 bakehouses on five separate occasions, or a total of 85 inspections. In twelve cases the premises were due for limewashing, and the work was completed prior to the next visit.

#### Workshops.

Inspections were made at workshops on 58 occasions, when six were found due for limewashing. No W.C. accommodation was provided at one; at another there was a blocked drain, whilst one W.C. was found defective and another insanitary. On notifying the responsible persons these matters were immediately attended to.

#### Factories.

Visits were made to the factories respecting the closet accommodation. Provision of an adequate number has to be made, with separate accommodation for the sexes, and due regard paid to the structural and sanitary condition of the conveniences.

#### Disinfection.

#### ARTICLES.

Two thousand and forty-four infected articles of bedding, clothing, or other household goods were disinfected by means of superheated steam at the steam disinfector.

#### ROOMS.

Two hundred and twelve rooms were disinfected with formaline vapour and solution, or with sulphur.

#### Cowkeepers and Milk Purveyors.

There are 19 Cowkeepers in the district, and 15 of these retail milk to the public. In addition there are also eight Milk Purveyors or Dairymen, who obtain milk from farmers outside the area, but deliver it in the district.

Employed in this delivery are no less than 21 milk floats, to say nothing of dandies and numerous bicycles. Unfortunately the dairies in use for the storing of milk, making of butter and cream, and the cleansing of milk utensils are structurally unfit. The best means whereby the work can be carried out in a satisfactory manner is to erect premises suitable for the purpose. It is pleasing to note that one firm has obtained new premises, which they intend to fit up with all sanitary appliances to ensure cleanliness in the methods proposed for dealing with milk, or in producing cream and making butter.

#### Milk.

Milk being a liquid which easily absorbs deleterious substances, there is all the greater reason for the utmost care to be exercised in the handling of this valuable food. Cleanliness should be the watchword of all those engaged in the milk industry, because by the time it has reached the consumer it may have passed through many hands. In some parts of the district purveyors leave full kits of milk standing on the kerb near the street gullies. This is a deplorable practice, and one that calls for alteration. Milk purveyors have been requested to prevent this in future.

# Milk Samples.

Thirty-three samples of milk were obtained. Excepting two the samples were bought by me from vendors whilst the milk was in course of delivery to customers or in course of transit at the railway station. Fourteen of the samples were despatched to the bacteriologist for examination for tubercle bacilli, whilst 19 were delivered to the analyst with a view to the detection of adulteration. The two exceptions included in the total number were samples of milk obtained by Mr. Rigby, Veterinary Surgeon, from two separate cows suspicious of tubercular affection, one proving to be tuberculous, whilst the other was negative. In the former case the cow was disposed of. The other samples tested for tuberculosis proved to be negative. All the remaining samples analysed for adulteration were certified as genuine.

#### Food and Drug Samples.

Superintendent Thompson, of the Lancashire Constabulary, has kindly furnished me with the following return of food and drugs taken in St. Annes-on-the-Sea Township during the year 1921:—

One each of Arrowroot, Cocoa, Ground Ginger, Liquorice Powder, Mustard and White Pepper; two each of Baking Powder, Carbonate of Soda, Coffee, Cream of Tartar, Ground Almonds, and Ground Rice; also eight samples of Milk. The County Analyst found all the 26 samples to be genuine.

#### Restaurant Kitchens.

Periodical visits have been made to restaurant kitchens, when the tables, cooking utensils, and sanitary fittings were found in clean and satisfactory condition.

#### Ice Creameries.

Attention was given to premises where ice cream was manufactured, and further to the shops or stalls where ice cream was sold. Care appeared to be exercised by the makers of this delicacy, and also to the proper cleansing of the vessels in which it was served.

#### Fried Fish and Chipped Potato Establishments.

Cleanliness is evidently the keynote of the Fried Fish and Chipped Potato Vendors from start to finish in the process of peeling the potatoes and dressing the fish to the serving of these nutritive foods to purchasers over the counters.

#### Public Abattoirs.

During the year the Public Abattoirs have been thoroughly repaired, and the iron and woodwork has been painted, both inside and outside. Visits were paid to the Abattoirs on 282 occasions during the day and night, when 483 beasts, 451 calves, 7,642 sheep and lambs, and 635 pigs were slaughtered, giving a total of 9,211 animals. Of this number three whole carcases were affected with tuberculosis—one heifer (480lbs.) and two pigs (181lbs. and 110lbs.), a total of 771lbs. Portions of carcases or organs, mostly livers and lungs, of seven cows and two heifers, amounting to 291lbs., were slightly affected with tuberculosis.

From three cows there were inflamed udders, 17lbs.; bruised stifle joint, 18lbs.; and actinomycosis of tongue, 8lbs.

There were also slightly inflamed lungs of one pig, 12lbs.; coccidia in four pigs' livers, 10lbs.; cirrhosis in livers of twelve pigs, 58lbs.

The three diseased carcases and all the affected organs or parts, as described above, were surrendered to me, after which they were immediately destroyed, not being suitable for human consumption.

#### Unsound Food.

Other unsound food consisted of two putrid buttocks of frozen beef, weighing 224lbs., and 80lbs. of putrid boiled crabs, all of which were taken away and destroyed, being unfit for human food. These foodstuffs were on retailers' premises, but were surrendered to me without having been offered for sale by retail.

# King's Lancashire Convalescent Centre (Ministry of Pensions).

Periodical visits are made to this Centre, which may be aptly described as a model miniature village. Its community consists of 550 persons, whilst every convenience for training men in various branches of science and providing for their physical, social, and moral well-being is excellently arranged. A body of men under these conditions have normal appetites, so that the food supply has to be safeguarded, and in this connection it was necessary for me to have destroyed twelve 2lb. tins of apricots, six 2lb. tins of corned beef, sixteen 2lb. tins of peaches, one 2lb. tin of pears, and one 1lb. tin and 41 2lb. tins of tomatoes, which were found in putrid condition and unfit for food.

Attention was also given to the removal of refuse to the Council's destructor which could not be disposed of in their own small destructor.

#### Smoke Observations.

Sixteen hourly smoke observations were taken of factory chimneys, and with one exception the time limit was not exceeded.

In this instance black smoke was sent out continuously for 10½ minutes. After the observation the stoker was interviewed, and his explanation was "that the oil valve had been turned on during his temporary absence." This or some similar occurrence must have been the cause, because the chimney was not emitting an excessive quantity of black smoke when observed later.

#### Convalescent Homes.

Owing to an unusual amount of infective sickness at two of the Children's Convalescent Homes, Dr. Tennant, the Medical Officer of Health, made several visits there, and suggested that not less than 500 cubic feet of air space per child should be the amount necessary for the sleeping rooms. As a guide to the management, varnished cards

were hung up in each bedroom, giving number of cubic feet and the number of beds allowed in each particular room. By the means of this increased air space per child it is hoped to improve the health of the inmates. At one home better "fire escape" provision is necessary, and it is the intention of the management to have this very essential work completed.

#### Salvage.

The year under review has been an unfortunate one as regards the salving of material from refuse. Not that there has been a scarcity of suitable articles, but owing to the depressed state of trade, consequently commodities have had to be destroyed, stored, or sold at a low figure according to the value attached to same. These reasons have prevented experiments being carried out which had for their object the value and use of the thousand and one articles that meet together in a conglomerate mass known as town's refuse.

Under the circumstances we were fortunate in obtaining over £40 for salvage.

## Waste Paper.

Eleven tons,  $13\frac{1}{2}$  cwts. of waste paper were disposed of during the early months of the year, after which there has been no demand for this commodity. It is to be hoped there will be an improvement, so that the stock of waste paper on hand may be disposed of.

# Rags.

A small quantity were sold, realising over 30s.

#### Old Crushed Tins.

Not a single crushed tin was despatched during the year, entirely due to the trade depression.

#### Bottles and Jars.

These accumulated very quickly, and we eventually disposed of them in various ways to secure the best market, with a result that over £27 was received.

#### Iron and Metal.

All kinds of iron and metal, including brass, copper, aluminium and other material were handed over to dealers for a sum exceeding £10.

#### Refuse Destructor.

All the refuse has been disposed of at the Destructor, consisting of 3,220 loads. Several loads were weighed, giving an average of  $27\frac{1}{2}$  cwts. each. On this basis the refuse dealt with amounts to 4,427 tons. Last year each load was only based upon the assumption that its weight was a ton. If we take the present basis, we have a cost of refuse destruction at 7s. 1d., instead of 9s. 9d., and for refuse removal of 11s. 2d. instead of 15s. 4d.

Considering the state of the structure the work has progressed favourably. Many repairs were effected during the year.

# Dwelling Vans.

Caravans at a fair were found in clean condition, and temporary arrangements had been made for use of water and sanitary conveniences during the three to four weeks' stay of the dwellers.

# Camps.

Camps were inspected, and these varied in size, accommodating from 12 individuals to as many as 800 persons. Each camp was supplied with water from the mains, whilst adequate arrangements had been made regarding the sanitary fitness of the camps.

#### Certificates of Habitation.

Ninety-three Certificates of Habitation have been granted, after completion of new houses. These were inspected by myself and the Surveyor, and found in satisfactory condition. The sanitary fittings are examined thoroughly, so that the health of the incoming tenants may be safeguarded by having any defects attended to before the houses are occupied.

I am, Gentlemen,

Yours faithfully,

WILLIAM E. PROCTER,
Chief Sanitary Inspector.

# FACTORY & WORKSHOP ACTS, 1901.

The Workshops on the Register number 81, and include:—

Baking and Confectionery	17
Blacksmith	
Boot Repairing	9
Cabinet Making and Upholstering	
Cycle Repairing	
Dressmaking	
French Polishing	
Golf Bag Making	
Harness Making	
Joinery	
Laundries	
Leather Belts	
Leather Buckles and Laces	
Millinery	
Sheet Metal	
Stained Glass	
Tailoring	
Tin Plate Working	
Wheelwright	
The Factories number 28, and include the follow	
Aerated Water and Bottling Depots	
Boot Repairing	
Blacksmith	
Electricity Works	
Gas Works	
Joinery	6
Laundries	3
Letterpress Printing	2
Motor Repairing Works	3
Refuse Destructor Works	1
Shoeing Forge	
Shoe Making	1
Stone Dressing	1
Tram Car Repair Works	1
Wheelwright	
OFFENSIVE TRADES.	
Gut Scraping	1
Rag and Bone Depot	

TABLE 1.—Cases of Infectious Disease notified during the Year 1921.
URBAN DISTRICT OF ST. ANNES-ON-THE-SEA.

	Deaths	of	ranemus removed from this District	V 11		****					:::	:						1
	Total	Cases	to Hospital.			7	48				::			-				55
	Re- pital ality.		W.	-	:	5	17	-		1	-	:		-	:			22
	No. of Cases Re- moved to Hospital from each Locality		<u>चं</u>	-	1	61	13			1	1		:					15
	of C ed to each		si s		:	-	: 6			:	;	1	:					6
SEA			ż	-	1	:	6	:	:	:	1		-	:	:	:		6
ANNES-UN-THE-SEA.	Total Cases notified in each Locality.		W.	-	1	5	19			0	:	-	:	:	:		-	28
	otal Cases notifie in each Locality.		E.	-	-	4	17	:	: 1	-	1	01	: 0	n -	- t		-	43
CHAR	Cas		vi vi	1	1	-	16 2	-	: 1	0	-	4	:		- 0	0		32
	Tota in e		ż	:	:	1	14	: '	-	:	-	21	:	:	: *	-		19
.10 0			65 and up- wd's	1		-	- 1	:	:	-	:		:		:			3
I Or	tified	ears	25 to 65	1	ł	64	- 9	:	- ;	Ξ	-	:	: 0	0	:		-	26
DISTRICT	es no	res ()	15 to 25	-	:	-	6	:		0	:	- 1	1	: 0	.71	:		15
TOTAL	of Cases notified	At Ages (Years)	5 to 15	:	:	9	44	!		:	1	4	:		:0	0	-	63
1777			1 to 5		::			:	****	:	:	4	:	-	. 0	c		14
CINDAN	Number		Un- der	1	1	:	: :	:		:	:	-	:	:	:	:	:	-
			At all ages	-	:	6	66 2	:	- :	CI	61	6	: 0	00	7 - 1	11	1	122
		Notifiable Disease.		Pneumonia	Cholera	branous Croup)	Erysipelas Scarlet Fever	Enteric Fever	Puerperal Fever	Phthisis Other than	-	Whooping Cough	Influenza	Factor of the Table	Chicken Der Gimited	Cincken Fox (Himited period)	Dysentery	Totals

Isolation Hospital: Moss Side Infectious Diseases Hospital, near Lytham.

# Causes of Death in St. Annes-on-the-Sea Urban District.

#### CIVILIANS ONLY.

Causes of Death.   Males.   Females		-		
Enteric Fever — — — — — — — — — — — — — — — — — — —	Causes of Death.	MALES.	FEMA	LES
Small-pox         —         —           Measles         —         1           Scarlet Fever         —         1           Whooping Cough         —         —           Diphtheria         1         1           Influenza         2         —           Encephalitis Lethargica         —         —           Meningococcal Meningitis         —         —           Tuberculosis of Respiratory System         3         2           Other Tuberculous Diseases         1         1           Cancer, Malignant Disease         3         14           Rheumatic Fever         —         —           Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         — <t< td=""><td>All Causes</td><td>59</td><td> 60</td><td></td></t<>	All Causes	59	60	
Measles	Enteric Fever	,		
Scarlet Fever	Small-pox			
Whooping Cough         —           Diphtheria         1         1           Influenza         2         —           Encephalitis Lethargica         —         —           Meningococcal Meningitis         —         —           Tuberculosis of Respiratory System         3         2           Other Tuberculous Diseases         1         1           Cancer, Malignant Disease         3         14           Rheumatic Fever         —         —           Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrhosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         — <td>Measles</td> <td>-</td> <td> 1</td> <td></td>	Measles	-	1	
Diphtheria         1         1           Influenza         2         —           Encephalitis Lethargica         —         —           Meningococcal Meningitis         —         —           Tuberculosis of Respiratory System         3         2           Other Tuberculous Diseases         1         1           Cancer, Malignant Disease         3         14           Rheumatic Fever         —         —           Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrhosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         —         2           Other Accidents a	Scarlet Fever	-	1	
Influenza				
Encephalitis Lethargica         —         —           Meningococcal Meningitis         —         —           Tuberculosis of Respiratory System         3         2           Other Tuberculous Diseases         1         1           Cancer, Malignant Disease         3         14           Rheumatic Fever         —         —           Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhoca, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrlosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         —         2         3           Other Accidents and Diseases of Pregnancy         and Parturition         —         —           Congenital Debili			1	
Meningococcal Meningitis         —           Tuberculosis of Respiratory System         3         2           Other Tuberculous Diseases         1         1           Cancer, Malignant Disease         3         14           Rheumatic Fever         —         —           Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrhosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         —         2           Other Accidents and Diseases of Pregnancy and Parturition         —         —           Congenital Debility and Malformation, Premature Birth         1         3           Suicide         1 <td< td=""><td>Influenza</td><td>2 .</td><td></td><td></td></td<>	Influenza	2 .		
Tuberculosis of Respiratory System         3         2           Other Tuberculous Diseases         1         1           Cancer, Malignant Disease         3         14           Rheumatic Fever         —         —           Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrhosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         —         2         3           Other Accidents and Diseases of Pregnancy and Parturition         —         —           Congenital Debility and Malformation, Premature Birth         1         3           Suicide         1         —           Other Deaths from Viol				
Other Tuberculous Diseases         1         1           Cancer, Malignant Disease         3         14           Rheumatic Fever         —         —           Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrhosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         —         2           Other Accidents and Diseases of Pregnancy         and Parturition         —           Congenital Debility and Malformation, Premature Birth         1         3           Suicide         1         —           Other Deaths from Violence         4         1           Other Defined Diseases         15				
Cancer, Malignant Disease       3       14         Rheumatic Fever       —       —         Diabetes       1       —         Cerebral Hæmorrhage, etc.       5       3         Heart Disease       4       9         Arterio-Sclerosis       7       2         Bronchitis       4       3         Pneumonia (all forms)       2       1         Other Respiratory Diseases       —       —         Ulcer of Stomach or Duedenum       —       —         Diarrhœa, &c. (under 2 years)       2       —         Appendicitis and Typhlitis       —       —         Cirrhosis of Liver       —       —         Acute and Chronic Nephritis       2       3         Puerperal Sepsis       —       2         Other Accidents and Diseases of Pregnancy       —       —         and Parturition       —       —         Congenital Debility and Malformation, Premature Birth       1       3         Suicide       1       —         Other Deaths from Violence       4       1         Other Defined Diseases       15       13         Causes ill-defined or unknown       1       —         <			2	
Rheumatic Fever         —         —           Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrhosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         —         2           Other Accidents and Diseases of Pregnancy         —         —           and Parturition         —         —           Congenital Debility and Malformation, Premature Birth         1         3           Suicide         1         —           Other Deaths from Violence         4         1           Other Defined Diseases         15         13           Causes ill-defined or unknown         1         —     <			1	
Diabetes         1         —           Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrhosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         —         2           Other Accidents and Diseases of Pregnancy         and Parturition         —           Congenital Debility and Malformation, Premature Birth         1         3           Suicide         1         —           Other Deaths from Violence         4         1           Other Defined Diseases         15         13           Causes ill-defined or unknown         1         —           Special Causes (included above)—         —         —			14	
Cerebral Hæmorrhage, etc.         5         3           Heart Disease         4         9           Arterio-Sclerosis         7         2           Bronchitis         4         3           Pneumonia (all forms)         2         1           Other Respiratory Diseases         —         —           Ulcer of Stomach or Duedenum         —         —           Diarrhœa, &c. (under 2 years)         2         —           Appendicitis and Typhlitis         —         —           Cirrhosis of Liver         —         —           Acute and Chronic Nephritis         2         3           Puerperal Sepsis         —         2           Other Accidents and Diseases of Pregnancy         and Parturition         —           Congenital Debility and Malformation, Premature Birth         1         3           Suicide         1         —           Other Deaths from Violence         4         1           Other Defined Diseases         15         13           Causes ill-defined or unknown         1         —           Special Causes (included above)—         —         —				
Heart Disease 4 9 Arterio-Sclerosis 7 2 Bronchitis 4 3 Pneumonia (all forms) 2 1 Other Respiratory Diseases — — — Ulcer of Stomach or Duedenum — — — Diarrhœa, &c. (under 2 years) 2 — Appendicitis and Typhlitis — — — Cirrhosis of Liver — — — Acute and Chronic Nephritis 2 3 Puerperal Sepsis — 2 Other Accidents and Diseases of Pregnancy and Parturition — — Congenital Debility and Malformation, Premature Birth 1 3 Suicide 1 — Other Deaths from Violence 4 1 Other Defined Diseases 15 13 Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — — —				
Arterio-Sclerosis 7 2 Bronchitis 4 3 Pneumonia (all forms) 2 1 Other Respiratory Diseases — — — Ulcer of Stomach or Duedenum — — — Diarrhœa, &c. (under 2 years) 2 — Appendicitis and Typhlitis — — — Cirrhosis of Liver — — — Acute and Chronic Nephritis 2 3 Puerperal Sepsis — 2 Other Accidents and Diseases of Pregnancy and Parturition — — — Congenital Debility and Malformation, Premature Birth 1 3 Suicide 1 — — Other Deaths from Violence 4 1 Other Defined Diseases 15 13 Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — — —			3	
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Pneumonia (all forms) 2 1 Other Respiratory Diseases — — — Ulcer of Stomach or Duedenum — — — Diarrhœa, &c. (under 2 years) 2 — Appendicitis and Typhlitis — — — Cirrhosis of Liver — — — Acute and Chronic Nephritis 2 3 Puerperal Sepsis — 2 Other Accidents and Diseases of Pregnancy and Parturition — — Congenital Debility and Malformation, Premature Birth 1 3 Suicide 1 — Other Deaths from Violence 4 1 Other Defined Diseases 15 13 Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — — —			2	
Other Respiratory Diseases — — — — — — — — — — — — — — — — — —			3	
Ulcer of Stomach or Duedenum — — — — — — — — — — — — — — — — — — —	Pneumonia (all forms)	2	1	
Diarrhœa, &c. (under 2 years) 2 — Appendicitis and Typhlitis — — — Cirrhosis of Liver — — — Acute and Chronic Nephritis 2 3 Puerperal Sepsis — 2 Other Accidents and Diseases of Pregnancy and Parturition — — Congenital Debility and Malformation, Premature Birth 1 3 Suicide 1 — Other Deaths from Violence 4 1 Other Defined Diseases 15 13 Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — — —				
Appendicitis and Typhlitis	Ulcer of Stomach or Duedenum			
Cirrhosis of Liver — — — — — — — — — — — — — — — — — — —	Diarrhœa, &c. (under 2 years)	2 .		
Acute and Chronic Nephritis 2 3 Puerperal Sepsis — 2 Other Accidents and Diseases of Pregnancy and Parturition — — Congenital Debility and Malformation, Premature Birth 1 3 Suicide 1 — Other Deaths from Violence 4 1 Other Defined Diseases 15 13 Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — — —	Appendicitis and Typhlitis			
Puerperal Sepsis — 2 Other Accidents and Diseases of Pregnancy and Parturition — — — — — — — — — — — — — — — — — — —	Cirrhosis of Liver			
Other Accidents and Diseases of Pregnancy and Parturition — — — — — — — — — — — — — — — — — — —	Acute and Chronic Nephritis	2 .	3	
and Parturition — — — — — — — — — — — — — — — — — — —	Puerperal Sepsis		2	
Congenital Debility and Malformation, Premature Birth 1 3 Suicide 1 — Other Deaths from Violence 4 1 Other Defined Diseases 15 13 Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — —				
mature Birth 1 3 Suicide 1 — Other Deaths from Violence 4 1 Other Defined Diseases 15 13 Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — —	and Parturition			
Suicide	Congenital Debility and Malformation, Pre-			
Other Deaths from Violence 4 1 Other Defined Diseases 15 13 Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — —	mature Birth	1 .	3	
Other Defined Diseases 15 13  Causes ill-defined or unknown 1 —  Special Causes (included above)—  Poliomyelitis —		1 .	—	
Causes ill-defined or unknown 1 — Special Causes (included above)— Poliomyelitis — — —	Other Deaths from Violence	4 .	1	
Special Causes (included above)— Poliomyelitis	Other Defined Diseases	15 .	13	
Poliomyelitis	Causes ill-defined or unknown	1 .		
	Special Causes (included above)—			
	Poliomyelitis			

	7				ALES.	FEN	MALES.
Deaths of Infants under	l year	:					
Total					4		6
Illegitimate					1	14-114	1
Total Births					50		72
Legitimate					47		69
Illegitimate					3		3
Population							. 10,520
Rates pe	Birth rate.		Death		rate.	sis o	Rate of Deaths under one year to 1,000 births.
1921							
Mean of 10 years—			15.2				
Increase or Decrease in 1921 on—	11.0		12.0		0.50		. 69
Previous Year	-2.7		-4.0	*****	-0.03	*****	+18
Ten Years' Average	+0.5		-0.8		-0.03		+12

Table XV.-BIRTH-RATE, DEATH-RATE, AND ANALYSIS OF MORTALITY DURING THE YEAR 1921.

this Table. The mortality rates refer to the whole population as regards England and Wales, but only to civilians Populations as enumerated in 1921 have been used for the purposes of as regards London and the groups of towns.) (Provisional figures.

PERCENTAGE OF TOTAL DEATHS.	Uncertified Causes of Death.	1-1	0.7	Ź	0.5
	Inquest Cases.	6.4	8.9	5.1	8.2
	Certified Causes of Death.	92-5	92-5	93-5	91-6
is.	Deaths in Public Institutions.	25.5	33-2	17:71	49-2
	Total Deaths under One Year.	83	87	35	80
ANNUAL DEATH-RATE PER 1,000 POPULATION. 1,000 BIRTI	Diarrhora and Enteritis (under 2 Years).	15.5	19-3	15-6	21-3
	Violence.	0-44	0-40	0.35	0-42
	Influenza.	0-23	0-23	0-26	0-23
	Diphtheria.	0.12	0-15	0-11	0.25
	Whooping-	0.12	0-13	0-11	0-12
	Scarlet Fever.	0.03	0.04	0-03	90-0
	Measles.	90-0	80-0	0-05	0.02
	Small-pox.	00-0	00.00	00-0	1
	Enteric Fever.	0.05	0-01	0-01	0-01
	All Causes.	12-1	12.3	11.3	12.4
BIRTH- RATE PER 1,000 TOTAL POPULA- TION.		22-4	23.3	22-7	22-3
		England and Wales	96 Great Towns, including London (1911 Census Populations exceeding 50,000)	148 Smaller Towns (1911 Census Populations 20,000—50,000)	London

# METEOROLOGICAL OBSERVATIONS.

		2000	(61 : : : : : : : : : : : : : : : : : : :
LATITUDE 53 14 38	At 9 a.m. No. of Days of	Bright. Gales	
		Overcast.	2 12 15 1 14 13 2 17 11 2 5 23 1 1 11 19 1 11 19 1 13 17 1 13 17 2 9 20 6 8 16 8 16 8 16 8 16 8 16
		Rain.	01-001- : :000 2
	-	Calm.	4011149984208
	Direction of Wind at 9 a.m.	'M'N	21 4 4 8 5 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
		.W.	17 6 10 10 10 11 11 13 3 3 3 126
		.W.R	0 :0012 :0001 : : : [2
		"S	::::428-226-24 [8] ::::4-8-4 :::: 01
		S.E.	:408-010-01-   E
		E.	8 60 : 1 : 1 : 1 : 2 : 2 : 2 : 3 : 3 : 3 : 3 : 3 : 3 : 3
		N.E.	
HH		Minutes.	01 000000000000000000000000000000000000
	Sun- shine		
		Hours of Bright Sunshine.	- 222-1-1
1921 ST. ANNES-ON-THE-SEA.	Rain- fall.	No of Days on which it fell.	12 18 18 19 10 10 10 10 10 10 10 10 10 10 10 10 10
		Rainfall in inches.	3.65 3.65 3.65 1.48 1.74 1.74 1.17 1.17 1.81 2.39 3.24
	Earth Grass Thermometers.	Grass (mean).	38.5 30.9 38.1 38.1 36.5 47.8 47.8 59.4 45.1 34.2 37.7 34.2 37.4 41.7
		+ ft. below Ground (mean).	44.3 40.5 45.2 50.1 50.1 57.7 63.0 61.4 59.2 59.2 59.2 59.2 61.4 61.4 625.5 625.5
		I ft. below Ground (mean).	43.4 39.7 44.7 44.7 44.7 62.0 62.0 62.0 62.2 58.9 58.9 43.4 42.9 616.2
	Temperature.	Mean Humidity of Air. Saturation 100	280 80 80 80 80 80 80 80 80 80 80 80 80 8
		Mean Daily Range.	13.9 18.6 18.6 10.3 10.3 10.3 14.5 14.5 15.7 12.9 12.9
		Mean Minimum in Shade.	42.0 36.7 40.2 40.7 51.6 57.2 57.2 57.2 57.2 51.8 36.9 40.3 45.8
		Lowest Minimum in Shade.	31.0 30.0 27.8 33.0 34.9 41.6 47.0 44.0 34.9 28.1 28.1 28.1 37.1
		Highest Maximum in Shade.	65.9 64.9 70.9 70.9 72.4 78.0 78.0 78.0 78.0 74.8 63.8 63.8 63.8 71.2
		Mean Maximum in Shade.	55.9 55.3 60.8 63.0 63.0 63.0 64.1 59.2 69.1 59.2 69.1 59.0
	Atmospheric Pressure.	.muminiM	29.190 29.250 29.340 29.340 29.434 29.434 29.750 29.750 29.750 29.750 29.750 29.750 29.750 29.750
		mumixeM	30.290 30.474 30.494 30.494 30.360 30.220 30.220 30.533 30.533 30.507 30.538
		Mean.	29-927 30-182 29-688 30-147 29-961 30-239 30-080 29-937 29-937 29-969 30-070 30-070 30-070
15		Month.	Jan Feb Apl June July Aug Sept Oct Dec Sums

