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BOROUGH OF WREXHAM.

# ANNUAL REPORT

OF THE

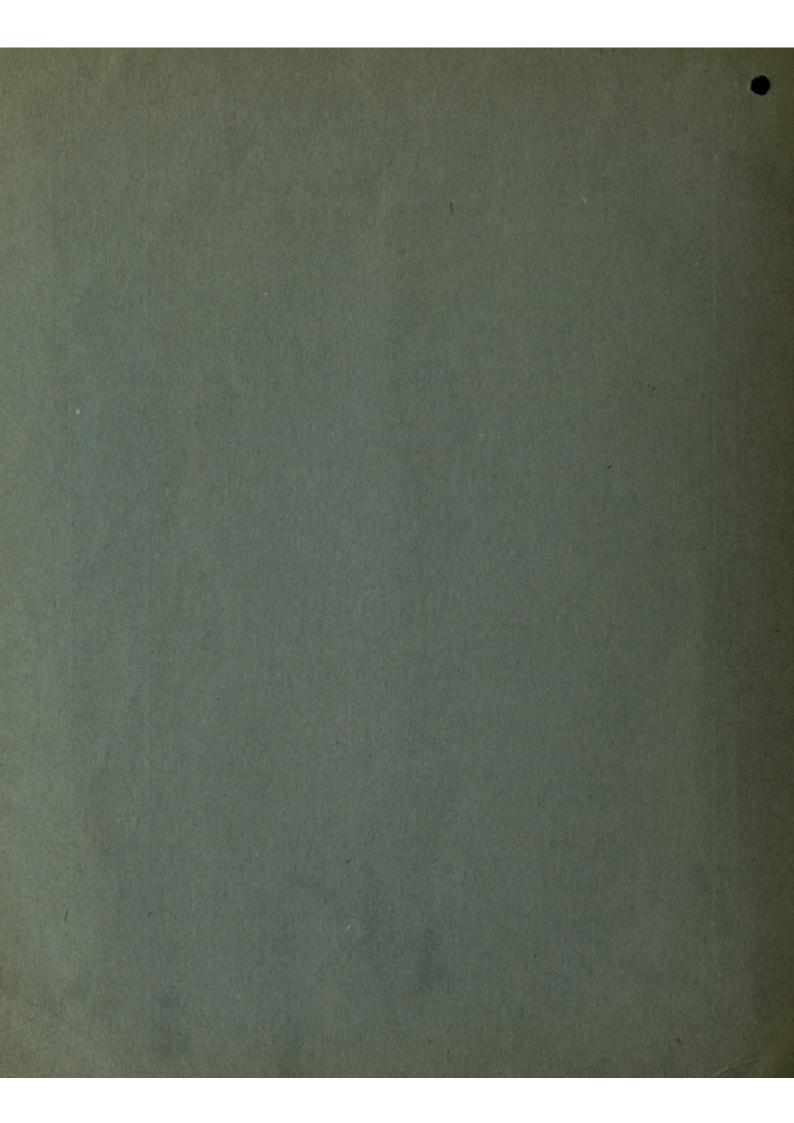
## Medical Officer of Mealth

FOR THE YEAR

1938.

T. P. EDWARDS,

M.D., B.S. (Lond.), D.P.H. (Cantab.)



# To the Chairman and Members of the Health Committee.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have the honour to present my Sixteenth Annual Report on the Health and Vital Statistics for the Borough of Wrexham for the year 1938.

The population of the Borough has increased by 270 persons and there has been a substantial increase in the birth rate, and also a substantial diminution in the death rate. The number of deaths of infants under one year of age has diminished slightly but owing to the large number of additional births the Infantile Mortality Rate has made a substantial reduction.

During the year there was a very substantial diminution in the number of cases of Diphtheria, and the question of a continued incidence of Diphtheria in the Borough was discussed in Committees and Sub-Committees in the presence of Dr. Wade, Medical Member of the Welsh Board of Health, and a Temporary Nurse was engaged to carry out necessary investigations into cases of Infectious Diseases. There was an increased number of Immunisations during the year and from May onwards the number of cases of Diphtheria showed a substantial reduction, although on the other hand the cases of Scarlet Fever tended to rise.

A large amount of work was done under the Housing Act, 1936, and the Five Year Programme was completed, although there are still a few unfit houses to be dealt with.

During the year the extensions of the sewerage system were carried into effect and this work was completed in 1939. During the year the extensions of the Five Fords Sewage Farm were completed.

During the year evidence was given at the Committee of Enquiry, set up by the Minister of Health in response to Tuberculosis in males, under the Presidentship of Mr. Clement Davies, K.C. Although this enquiry primarily dealt with Tuberculosis, it was soon found that one could not separate the question of Tuberculosis from the general health administration as a whole, and many authorities in Wales were severely criticized for their neglect in providing the necessary amenities as required by modern civilisation.

The County of Denbigh received high praise but it is to be pointed out that most of the work done within the County had been done by the individual authorities, especially the Borough of Wrexham and the Wrexham Rural District.

It was pointed out in this enquiry that we, in the Borough, were fully up-to-date in health matters and that we carry out all the duties with very few exceptions, which are required by Health Legislation.

I am,

Mr. Chairman, Ladies and Gentlemen,

T. P. EDWARDS,

Medical Officer of Health.

### Staff of the Public Health Department.

Medical Officer of Health, Medical Officer for Maternity and Child Welfare, Medical Superintendent of the Fever Hospital.

T. P. EDWARDS, M.D., B.S.(Lond.), D.P.H. (Cantab.)

Assistant Medical Officer for Maternity and Child Welfare and Medical Officer to Ante Natal Clinic.

KATHARINE R. DRINKWATER, O.B.E., M.B., B.S., D.P.H.

Chief Sanitary and Housing Inspector and Superintendent of Abattoir.

L. A. STROUD, M.R.S.I., M.S.I.A.

Sanitary Inspector—J. G. WILKES, Cert. R.S.I.

Meat Inspector's Certificate R.S.I.

Health Visitor - - MRS. H. MOORE.

H.V. & School Nurse - - NURSE M. LLOYD JONES.

Temporary Infectious Disease Visitor - - NURSE AGNES NICOLL.

Clerk to the Borough Health Department.

MISS B. PROBERT.

Matron of the Fever Hospital.

MISS H. M. DAVIES.

### Health Committee.

#### Chairman:

ALDERMAN CYRIL O. JONES, B.A.

#### Vice-Chairman:

ALDERMAN MRS. PRICE, J.P.

#### Members:

ALDERMAN	DODMAN.	Councillor	HACKETT.
,,	JARMAN,	,,	MORRIS.
,,	THOMAS.	,,	CATHERINE JONES.
,,	EMYR WILLIAMS.	. ,,	GARNER JONES.
COUNCILLOR	BREESE.	,,	OGDEN.
,,	CHALLONER.	,,	STABLER.
,,	DUTTON.	,,	TAYLOR.
,,	HICKMAN.	,,	ED. WILLIAMS.
	HIS WORSHIP	THE MAYOR (COL	NCILLOR IOHN DAVIES

HIS WORSHIP THE MAYOR (COUNCILLOR JOHN DAVIES).

### Maternity and Child Welfare Sub-Committee.

#### Chairman:

ALDERMAN CYRIL O. JONES, B.A.

#### Vice-Chairman:

ALDERMAN MRS. PRICE, J.P.

#### Members:

MRS. CYRIL O. JONES
MRS. AFFLECK.
MRS. BELLIS.
MRS. FOULKES.
MRS. GARNER JONES.
MRS. PICKEN.
MRS. EMYR WILLIAMS.

Town Clerk: MR. PHILLIP J. WALTERS.

Engineer & Surveyor: MR. JOHN ENGLAND.

### General Statistics.

Area (acres) Population ( Number of in Number of in Rateable Va Sum present Corporation	nhabited how nhabited how lue (April 1s ed by a pens	Registra uses, 193 uses, 193 st, 1938)	8 1 censu		imati	on)			2,91 25,74 6,77 4,48 £154,52 £589/2/:	0 5 3 7 2	
Extrac	ts fron	n Vit	al S	tatis	tic	5 0	f t	he	Year		
		opulatio							· cai	•	
			rar Gen				-,				
	ive Births I			M. 208 10		F. 204 13	To	tal 412 23			
		To	TAL	218		217		435			
Pirth Pata			160		elond	- and 1	-	-		1	15.1
Birth Rate Stillbirths—		. 1.	16.9	Eng	giand	and \	waies		117.		15.1
Legitimate Illegitimate		lale lale	11	Fen Fen				6 2	Total Total		17 2
	T	otal	11			Total		8	Total		19
Rate of Stillbirths per Rate of Stillbirths per Deaths—					land	and \	Fema	ale.			0.60 41 8 Total. 297
Death Rate Comparability Fa	ctor .	411	11.5 1.08			Deat and V		e	::	::	12.42 11.6
Number of women dy	1. From S	epsis ther cas		hildbir	th :-	-					
		(lı	te per 1 ive & sti	ll) birth	s.		R		er 1,000 births.	liv	e
Puerperal Sepsis Other causes .	. ::	Wrexh	am. — —		.86 .11	les.	Wrea	cham. — —	Eng.	6 1 0.8 2.1	
	TOTAL			2	.97		_	_		3.0	8
Deaths of Infants und	der one year	r of age	per 1,0		hs :-	-	To	tal.			
	Legitimate	1	4	1 cm	11		10	25			
	Illegitimate		1	Waster .	_		-	1			
	Total	1	5		11			26			
		-		Name of Street	-		2000	-			

Infantile Mortality Rate :-

Legitimate .. 60.6 Illegitimate .. 43.5

Total .. 59.7 (England & Wales .. 53).

Deaths from Measles (all ages)	 	-
Deaths from Whooping Cough (all ages)	 	1
Deaths from Diarrhoea (under two years of age)	 	3

#### BIRTHS.

During the year there were 435 live births of which 218 were males and 217 females. The total number is an increase of 46 over 1937. Of these births 412 were legitimate, and 23 illegitimate. The legitimate births have increased by 41 and the illegitimate by 5.

#### BIRTH RATE.

The Birth Rate for the year is 16.9 which is an increase of 1.7 on the number for 1937, namely, 15.2, and is over the average of the whole of England and Wales, namely, 15.1. The Birth Rate for the previous years and for 1938 was as follows:—

1929	 15.2	1934	 15.0
1930	 14.6	1935	 14.8
1931	 15.2	1936	 14.4
1932	 13.9	1937	 15.2
1933	15.0	1938	16.9

#### STILLBIRTHS.

During the year there were 19 stillbirths. Of these 11 were males and 8 females, 2 females being illegitimate.

#### STILLBIRTH RATES.

The rate of stillbirths per thousand population was 0.73 as compared with 0.74 for 1937, and 0.6 for England and Wales. The rate of stillbirths per thousand total (live and still) births is 41.8.

#### DEATHS.

During the year the total number of deaths registered as having occurred in the Borough was 496. From this number 217 persons who were non-residents, must be deducted, but 18 Borough residents, who died outside the Borough, have to be added on. This makes a total number of deaths in respect of Borough residents, of 297 as compared with 359 in 1937. It is of interest to note that the number of deaths was 138 less than the number of births as compared with 30 in 1937. This indicates that although there was a slight increase in the number of births, there was a far greater decrease in the number of deaths during the year.

#### DEATH RATE.

Taking the figure 297 as representing the actual number of deaths, this gives a crude death rate of 11.5 as compared with 14.09 in 1937.

The Registrar General has supplied us with a comparability figure, namely, 1.08, in order that the actual number of deaths may be adjusted according to difference in age and sex incidence, so that it can be used for comparative purposes. Taking this factor into consideration,

the adjusted death rate reaches a figure of 12.41 as against 15.2 in 1937: the death rate for the whole of England and Wales was 11.6. Although there has been a very marked decrease in the death rate, it is still slightly above that of England and Wales.

The death rate for the previous years, and the year 1938, is as follows :-

1929	 12.7	1934	 12.66
1930	 12.7	1935	 13.9
1931	 11.9	1936	 14.9
1932	 12.5	1937	 15.2
1933	 12.9	1938	 12.42

The following table gives the causes of death :-

Causes.				Males.	1	Females.	TOTAL.
1.—Typhoid and Paratyph	oid Fe	vers	 	_		_	 _
2.—Measles			 	_			 -
0 0 1 7			 	_		-	 -
4.—Whooping Cough			 	-		1	 1
5.—Diphtheria			 	5		3	 8
6.—Influenza			 	1		1	 2
7.—Encephalitis Lethargic			 	1		1	 2
8.—Cerebro-Spinal Fever			 	-			
9.—Respiratory Tuberculo			 	5		5	 10
0.1 70 1			 	1		2	 3
11.—Syphilis			 				
12.—General paralysis of th	e insan						_
13.—Cancer	C IIISUI			23		20	43
and the same of th						2	 2
15.—Cerebral Haemorrhage			 	11		13	 24
16.—Heart Disease			 • •	24		30	 54
1 - A		**	 			_	_
19 Other circulatory			 	13		12	 25
18.—Other circulatory 19.—Bronchitis			 	5		4	 9
			 	10		11	 21
20.—Pneumonia (all forms)			 	10		1	 1
21.—Other respiratory			 	1		1	 1
22.—Peptic Ulcer			 	1		2	 3
23.—Diarrhoea, etc. (under	-	s)	 	-			 3
24.—Appendicitis			 * *	3			 1000
25.—Cirrhosis of liver			 	1			 1
26.—Other liver diseases			 	2		_	 2
27.—Other digestive			 	5		5	 10
			 	4		3	 7
29—Puerperal sepsis			 				 -
30.—Other puerperal			 		**	_	 -
31.—Congenital causes, etc.			 	10		9	 19
32.—Senility			 	1		3	 4
			 	-			 -
34.—Other violence			 	10		2	 12
35.—Other defined causes			 	12		15	 27
36.—Ill-defined causes			 	1		2	 3
All causes.	TOTAL	L	 	150		147	 297
				_			

Special Causes included in No. 35 above are :-

Smallpox			 	-	 	 _
Poliomeyelitis			 	_	 -	 _
Polio-Encephalitis			 	-	 -	 -
Diarrhoea (2 years	and	over)	 	-	 	 _

It is of interest to make a few remarks in reference to the comparison of the figures for 1938 as compared with those of 1937. There have been no deaths from Typhoid, Measles and Scarlet Fever. The Diphtheria deaths have decreased by 7 and of these 7, six were males. The Influenza deaths have decreased from 11 to 2. The Respiratory Tuberculosis deaths have decreased from 21 to 10, whereas the other Tuberculosis deaths equal the number for last year. During the year there have been 13 Tuberculosis deaths as compared with 24 in 1937. The Cancer deaths have increased by 6; there has been an increase by 5 in males and 1 in females. Cerebral Haemorrhage has decreased by six, the decrease being the same in both sexes; namely 3. Heart Disease accounts for 24 less deaths, but there have been 19 less male deaths and 5 less female deaths. In all forms of Pneumonia there have been 3 less deaths and a diminution of 5 in male deaths has been counterbalanced to a certain amount by an increase of 2 in the female deaths. Nephritis is responsible for 8 less deaths. Congenital causes have been responsible for 2 more deaths, these 2 being females.

#### CANCER.

During the year there were 43 deaths, 23 being males and 20 females. The number for the previous year was 37 so that there has been an increase of 6 cases. The ration of Cancer deaths to total deaths is 1:6.9 as compared with 1:9.7 in 1937, and the Cancer death rate per thousand population is 1.67 as compared with 1.4 for 1937. The localities of these Cancer deaths is given in the table below:—

Deter .					Males.	F	emales.	TOTAL.
Mouth					 3		-	 3
Oesophagus					 3		-	 3
Stomach					 5		5	 10
Colon					 2		3	 5
Pancreas					 1		1	 2
Rectum					 1		1	 2
Pulmonary	and	Mediasti	num		 3		_	 3
Breast					 		3	 3
Ovary					 _		1	 1
Uterus and					 		5	 5
Bladder					 2		-	 2
Parotid end	othel	ioma			 1		_	 1
Hypernephr					 _		1	1
Prostate					 2		-	 2
						1		
		T	OTAL	**	 23		20	 43
					-			

#### INFANTILE MORTALITY.

The number of deaths of children under 1 year of age was 26 as compared with 28 for 1937. Of these 25 were legitimate and 1 illegitimate. 15 were males of which 14 were legitimate and 11 females all being legitimate. Of the 28 cases 19 were due to congenital causes 10 being males and 22 of the deaths were neonatal, dying within the first month of birth.

In respect of the number of deaths from diarrhoea, under 2 years of age there were 3 deaths, one male and 2 females, as compared with 3 in 1937. The diarrhoea death rate per thousand .live births, was 6.9 as compared with 7.7 in 1937 and 5.5 for England and Wales for 1938.

#### INFANTILE MORTALITY RATE.

The Infantile Mortality Rate for the year reached a figure of 59.7 as compared with 71.9 in 1937. The reduction is due partly to a decrease in the number of deaths but the greater feature is an increase in the number of births. The rate for England and Wales for 1938 was 53, thus our rate still continues to be much higher that that for England and Wales. The legitimate Infantile Mortality Rate was 60.6 as compared with 72.7 in 1937, and the illegitimate Infantile Mortality Rate was 43.5 as compared with 55.5 in 1937. It will be noticed that the Infantile Mortality Rate for England and Wales has fallen by 5. Our Infantile Mortality Rate has decreased by 12.2.

#### MATERNAL MORTALITY.

It is satisfactory to note that there has been no death from puerperal causes during the year. The rates of the Country are given in the following table.

	Puerpera sepsis.	ıl	Others.		Total.
 	 -		-		-
 	 _		_		-
 	 0.86		2.11		2,97
 	 0.89		2.19		3.08
	 	sepsis 0.86	0.86	sepsis. Others. :: : = : = : = : : : : : : : : : : : :	sepsis. Others

#### NOTIFIABLE DISEASES.

The table below indicates that there were 195 cases notified for 1938 as against 303 in 1937, and 385 in 1936; thus indicating a steady diminution in the total number of cases notified. Of these 195 cases, 74 were cases of Diphtheria, as compared with 177 in 1937. The number of cases of Scarlet Fever was 66, as compared with 49 for 1937, thus there has been a very marked diminution in the number of cases of Diphtheria, but an increase for Scarlet Fever. Puerperal Pyrexia cases increased from 6 to 10, but Pneumonia cases diminished from 56 to 31.

There were 137 cases admitted to hospital as compared with 233 in 1937, and there were 31 deaths as compared with 40 in 1937. Of these deaths 8 were Diphtheria, 21 Pneumonia, and 2 Encephalitis Lethargica.

#### Notifiable Diseases during the year (excluding Tuberculosis).

I	DISEASE	s.	-	11	Total Cases Notified.	Cases admitted to Hospital.	Total Deaths.
Small Pox	9.0		127	4.5			_
Diphtheria					74	72	8
Scarlet Fever				*:.	66	54	_
Enteric Fever (in	cluding	Paratyp	hoid)		_	_	_
Puerperal Pyrexi					10	1	_
Pneumonia					31	3	21
(Other disease			iable).				
man and a second					13	6	_
Encephalitis Leth					_	_	2
Cerebro-Spinal Fo					1	1	
Poliomyelitis					-	-	_
		TOTAL			195	137	31

### Fever Hospital Statement for 1938

(CIVILIANS ONLY).

	Sca	rlet Fe	ver.	Diphther	ia.	Erysipelas	Total.
Remaining in Hospital, December, 1937		6		11		1	 18
Admitted during the year 1938		53		72		5	 130
Discharged during year 1938		53		75		6	 134
Remaining in Hospital, December, 1938		6		2		_	 8
Deaths in Hospital during the year 1938		-		6		-	 6
Deaths percentage on admissions		_		8.3		-	 4.6
Death percentage on Total Cases in Hospital		-		7.2		-	 4.0

#### Tuberculosis Cases notified during the year.

Arranged according to age.

These Notifications refer solely to those notified previous to death, and refer solely to patients resident in the Borough.

		New	CASES.			DEA	THS.	
Age Periods.	Pulmo	onary.	Non-Pu	lmonary.	Pulme	onary.	Non-Pu	lmonary.
	M.	F.	M.	F.	M.	F.	M.	F.
0— 1	_	_	_	_	_	_	_	_
1-5	-	_	2	1	_		-	1
5—10	_	1	3	2	_	_	-	_
10—15	2	1	3	-	_	_	1	-
15-20	4	1	-	-	_	_	_	
20-25	2	3	2	-	_	-	-	_
25-35	1	3	1	4	3	2	-	1
35-45	5	1	1	-	-	2	-	
45-55	4	1	-	1	1	1	-	_
55-65	3	1	3	-	1	_	-	-
65 and Upwards	-	-	-	-	-	_	-	_
	21	12	15	8	5	5	1	2
	3	3	23=	56	1	0	3=	=13

The above table refers to all deaths from Tuberculosis and indicates that the number of deaths from Tuberculosis during the year was 13 as compared with 24 in 1937. The number of deaths that occurred, not notified before death, was 2, so that the ratio of non-notified deaths to total Tuberculosis deaths is 2:13. This is a very marked improvement in the notification of Tuberculosis by Medical Practitioners and it is to be hoped that this will remain satisfactory, though the ideal state of affairs would be that no death occurred, in any case, not previously notified.

During the year evidence was prepared and presented by the Borough in conjunction with other Non-County Boroughs in Wales, to the Enquiry, and Tuberculosis held during the year under the Presidentship of Mr. Clement Davies, K.C. In support of this evidence of the Welsh Non-County Boroughs, the Medical Officers of Health of Colwyn Bay, Llanelly, Neath and Wrexham appeared before the Commission of Enquiry.

The Enquiry was a lengthy one and it was soon found out during the course of the proceedings that one could not concentrate solely on the question of Tuberculosis, but that the Enquiry took a much wider aspect in determining the action taken by the various Local Authorities in Health Administration as a whole. The Report of the Enquiry was issued in 1939 and in this Report the County of Denbigh were praised for the work that had been done in General Health Administration but no reference was made to any specified work done by the individual Local Authorities.

Naturally in such an Enquiry as this, emphasis was made on the provision of Houses for the working classes, and also the work done in the removal of unfit houses, and the steps taken for the abatement of overcrowding. On all these aspects evidence was given on behalf of the Borough and evidence on behalf of the Non-County Boroughs was presented by Mr. Walters, Town Clerk of Wrexham, and it may be of interest to epitomise briefly the main points of the evidence presented on behalf of the Non-County Boroughs. It was pointed out that we were not interested in the proposals of the Welsh National Memorandum, which were exclusively related to finance such as, the borrowing powers and financial estimates of the Association, although it was pointed out that certain proposals involving additional expenditure would affect the Non-County Boroughs. It was pointed out that the notification of Tuberculosis receives every attention in the Borough and every endeavour is made that the Medical Practitioners should notify any case coming to their knowledge previous to death. I have already pointed out that there has been a very marked improvement in this respect during the year 1938 in Wrexham. The Welsh National Memorial Association paid special attention to the fact that a certain form "T.1.(Wales)" was a "dead letter" although certain of the Non-County Boroughs do fill up this form. It was pointed out that most cases of Tuberculosis were examined previous to diagnosis, by a Tuberculosis Officer and that the School Medical Officers usually reported cases of suspected Tuberculosis which have come to their notice, and that there is every co-operation between the Health Staff of the Borough and the Tuberculosis Officer of the area.

It is to be pointed out that the requested returns of notifications are sent weekly and quarterly to the County Medical Officer of Health who himself sends copies to the Tuberculosis Officer and that periodically the County Health Offices and the Local Tuberculosis Clinic are visited by my Clerical Staff for a revision of the notifications, in order to cross out those cases who have not remained in residence in the area or who have been cured, or who may be crossed out for other reasons. It was pointed out that certain Authorities send copies of the Returns to the Tuberculisis Officer, but there is no statutory obligation for this to be done.

Under "Prevention of Infection and Disinfection," evidence was given that we do carry out all our duties in this respect. Houses are visited by the Health Officers and the houses are thoroughly disinfected and the bedding and clothing removed to the Isolation Hospital for disinfection. Thorough disinfection is carried out especially when a patient dies or is removed to a Sanitorium and free supplies of disinfectants are available on application at the Health Department Offices.

Under the heading of "Education or Propaganda," it was pointed out that we co-operate to the utmost with officials of the Welsh National Memorial Association in their periodical visits to the schools and we give them every assistance in our power.

One point stressed in the evidence was that there was no representation given to Non-County Boroughs, by the Association, and greater co-operation would be secured if such were the case. At one time Medical Officers of Health were members of the Association, but since 1923 they have been excluded from membership. It must be pointed out, however, that the average Medical Officer of Health is too fully occupied to afford time to attend these meetings.

Emphasis was laid on the fact that Prevention of Tuberculosis could not be dissociated from the general health work of a Local Authority, who should receive good credit for their work in recent years and certainly, as I have already indicated, there is no credit given in the Report

of the Work done by a Local Authority. It may be that a question, so far as Wales was concerned, was regarded County basis and naturally the County Council would be only too willing to receive credit, but should there be any blame attached, they would be only too pleased to transfer it to anyone else, but themselves.

The activities of a Local Authority, such as this, can be summarised in the following categories:—

- 1. Education of the General Practitioner in reference to better and earlier notification. Whenever any death occurs, not notified, the Medical Practitioner concerned is at once written to, to ask the reasons why there was not earlier notification. In some cases, the patient was not admitted to hospital for a long enough period for notification to take place, and in some cases the Medical Practitioner was of opinion that the case had been notified previously.
- 2. The disinfection of houses, bedding and clothing, is provided on application by the householder to the Medical Practitioner, or the Tuberculosis Officer.
- House-to-house inspections are continually taking place, either routine or by special request and the necessary steps are taken to deal with the removal of sanitary defects.
- 4. A close supervision is made of milk and milk retailers and producers, although the latter are very few in the Borough, with reference to the question of Tuberculosis. It will be noted in Mr. Stroud's Report that in the year 1938, 117 samples of milk were submitted for bacteriological examination as compared with 51 in 1937, and of these 22 samples were of Pasteurised milk supplied to the schools, 43 samples of Designated and Non-Designated milks were submitted for test as compared with none in 1937, and one sample gave a positive result.
- A thorough inspection of meat at the Abattoir and Private Slaughterhouses is carried out by qualified meat inspectors.
- 6. A large amount of work is being done under the Housing Act, 1936, in clearance areas and individual unfit houses, and as far as the Borough is concerned the five year programme has now been completed, although there are still unfit houses which will require attention in the near future.
- 7. The provision of Council Houses is an important item in the work of a Local Authority and we, in the Borough, have done a large amount of work in this respect, especially when it is taken into consideration that there are 1,745 Corporation Houses within the Borough. A recommendation was made in the evidence that the Authority should have power to erect houses for Tuberculosis Patients and that these houses should rank for subsidy in the same manner as houses under the Housing Act, 1936. Application has been made by the Health Department in respect of Tuberculosis families for the tenancy of houses under the Corporation.
- 8. The Abatement of overcrowding has also received attention, although to a certain extent the abatement of overcrowding is closely linked up with demolition of unfit houses.
  - 9. Inspection of Cowsheds and Workshops.
- 10. Reference was made in the evidence to the fact that the question of nutrition receives the fullest sympathy on the part of the Council. The expectant mother is provided with free milk and also Vitamin Capsules which have been of the utmost value in improving nutrition and has also had a beneficial effect on conditions, not in any way related to pregnancy, but which were present in the expectant mother. Milk is provided generally up to the age of one for children who are not on the breast, and also to nursing mothers and if necessary this period is extended to the age of 5. Children under 5 and school children are provided with Cod Liver Oil, Virol and other important remedies by the Health Department and School Medical Service. It was

pointed out in the evidence that applications had also been made to the Tuberculosis Officers for help in nutrition but these applications had constantly been refused. Certain cases are assisted by the Unemployment Assistance Board and favours voluntary organisations such as the Civic Guild of Help and the British Legion and if necessary by the National Society for the Prevention of Cruelty to Children.

11. Pasteurised milk is provided in the schools and a large amount of this is given gratuitously. Again, free meals are given at the central depot, although in two of the schools the food is sent each day, in order to prevent children having to walk an unnecessary long distance for their meals, which no doubt would counteract any benefit that a good meal would give them.

It does appear that in the County of Denbigh we are the only authority that have provided free meals in the schools and there are very few authorities, if any, in the whole of North Wales who do so; so that one can state that the Borough of Wrexham leads the way in this aspect of nutrition.

12. The School Medical Service and the Maternity and Child Welfare Committee engage a Consultant Specialist for the examination and treatment of diseased Mastoid process and other nose, throat, and ear conditions, by operative measures at the Local Hospital.

Taken as a whole it will be seen that the Borough of Wrexham are fully alive to the means of improving the conditions in which people live and the prevention of any environmental circumstances which would interfere with the health of the inhabitants. I have already indicated the steps taken in disinfection, housing matters, demolition of unfit houses, prevention of overcrowding, improvements in sanitation and the promotion of a pure milk supply in the Borough of Wrexham. A close watch is taken over the water supplies which are excellent in nature and need no comment.

The question of Treatment does not directly concern the Non-County Boroughs but one difficult point is the fact that certain patients insist on early discharge from the Institution. I have already indicated the steps taken in dealing with nutrition but this is closely bound up with that of after care, about which it is necessary to say a few words.

Some two or three years ago the question of a Tuberculosis Patient after discharge from the Hospital was discussed in the Borough Health Committee and the recommendation was passed to the County Council that an After-Care Committee should be formed to deal with this aspect of prevention of Tuberculosis. This Committee was established but unfortunately the scheme was a complicated one, including a multiplicity of Sub-Committees (one for each Local Authority), with a co-ordinating Committee.

At the same time one unsatisfactory feature of this scheme was the fact that the Tuberculosis Officer in the area had no direct control. In the evidence given by the County Council, great stress was made of a scheme for After-Care, based on the previous scheme but improved by the fact that instead of a multiplicity of Sub-Committees, only two were formed, one for East Denbighshire and one for West Denbighshire, and that the Tuberculosis Physician had an interest in the proceedings.

This scheme was praised by Mr. Clement Davies and was reported by him to all the Local Authorities in Wales. It is to be hoped that this After-Care Scheme will be successful in its deliberations, which was certainly not the case in the earlier scheme. These are the chief points as passed by the Non-County Boroughs although it was pointed out that there were many aspects of the question which did not directly concern the Non-County Boroughs, especially in North Wales.

It was pointed out that a clear definition of the respective duties of the Local Sanitary Authority and the National Memorial Association should be made in reference to Notification, Disinfection and other matters. Another point raised was the segregation of infectious cases in institutions and that these should not be allowed to return home to infect other members of the same family.

It was also suggested that the Association should annually communicate with the Non-County Boroughs giving a Review of an Anti-Tuberculosis Campaign in the Boroughs and stating the points upon which means could be improved, whereas on the other hand the Non-County Boroughs should be allowed to make suggestions as to any improvement desirable.

56 cases of Tuberculosis were notified previous to death as compared with 40 in 1937. Of these 33 were Pulmonary and 23 Non-Pulmonary, and 36 were males and 20 females.

The Ward Distribution is as follows :-

A.	B.	C.	E.	F.	G.	M.	0.	W.D.	Total.
2	15	4	3	8	13	10	1	_	 56

#### PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925.

During the year no employee in the milk trade was notified to us as suffering from Tuberculosis and it has not been necessary for us to take any action under these Regulations.

#### DIPHTHERIA.

The number of cases of Diphtheria notified during the year was 74 as compared with 177 for 1937; this being a reduction of 103 cases. According to the Fever Hospital Statement for the year 1938, 72 cases were admitted. The case rate per thousand population was 2.8 as compared with 6.9 in 1937, whereas the case rate per thousand population for England and Wales is 1.58. This indicates that although there has been a substantial reduction in the number of cases during the year the case rate per thousand population is still high as compared with the whole country. Of the 72 cases admitted to Hospital, there were 6 deaths and 2 other deaths occurred, not in Hospital. The death rate per thousand population is 0.3 whereas the death rate per thousand population for 1937 was 0.58 which indicates that there has been a reduction in the death rate during the year. Of the cases admitted to Hospital the death rate percentage on admissions was 8.3 as against 7.7 for 1937, whereas the death percentage on total cases in Hospital during the year was 7.2.

The Ward Distribution of the cases is as follows :-

A.	В.	C.	E.	F.	G.	M.	0.	W.D.	Total.
3	3	11	8	5	12	28		4	 74

The question of the high incidence of Diphtheria in the Borough has been subject to continual discussion in the Health Committee, and as indicated in my last Report a special Sub-Committee was formed to discuss this question and in the early months of 1938 we had the honour and pleasure of having Dr. Wade, the Medical Member of the Welsh Board of Health at one of the Meetings. The matter of Diphtheria was fully discussed in all its aspects and it was decided to advertise for the temporary appointment of a Special Qualified Nurse whose duty would be primarily to visit each house where Diphtheria and other infectious diseases occurred, also to take any swabs necessary of contacts and to visit the schools periodically with a view of determining whether there were any fresh cases of infectious disease and if necessary to take swabs in the schools. As a result of the advertisement there were only two applications and Nurse Agnes Nicoll was appointed for one year and she commenced her duties on October 1st. Most of the cases occurred during the first two or three months of the year, and from May onwards there was a substantial reduction in the number of cases and this continued throughout the year, although taking into consideration the population of the Borough as compared with that of the Rural

District, there was a slight excess of cases in the Borough. As regards their distribution, the above table indicates that the Maesydre Ward is still the Locality in which Diphtheria is excessive, although one must take into consideration the fact that nearly one fifth of the whole population of the Borough resides in this Ward which contains two large housing estates, namely Spring Lodge and Maesydre, but even though the figures for this Ward could be regarded as high, there was a very substantial reduction during the year as compared with 1937, when there were 61 cases as compared with 28 in 1938. It is satisfactory to note that there was a very substantial reduction from 15 to 3 in the Acton Ward, from 21 to 3 in the Brynyffynnon Ward, from 14 to 11 in the Caia Ward, from 16 to 8 in the Erddig Ward, from 15 to 5 in the Fechan Ward, from 14 to 12 in the Grosvenor Ward, from 10 to 0 in the Offa Ward, and from 11 to 4 in the Wat's Dyke Ward.

This indicates clearly that there was a reduction in the number of cases in all the areas of the Borough and especially so in the Acton, Brynyffynnon, Erddig, Fechan, Maesydre and Wat's Dyke Wards. Of the 74 cases, 44 were children of school age, 29 being males and 15 females, as compared with 67 males and 42 females in 1937. The incidence of the cases was fairly uniform throughout the schools, although there were no cases in the Alexandra Senior Department and the greatest incidence was in the Church Boys, and Rhosddu Infants' Schools. The greatest incidence of cases occurred between the ages of 7 and 8 after which there was a very marked reduction except perhaps for the aged of 11 to 13.

#### IMMUNISATIONS.

During the year the following cases were dealth with :-

#### Schick Test.

	Positive Negative		::	::	::	_ 2
Re-Test.						
	Positive					_
	Negative					-
Immuni	sations.					
	ed from pre					_
Complet	ed during t	he yea	r			148
	leted at the			ear		10

It is satisfactory to note that the number of Immunisations which had been completed during the year was 148 as compared with 50 in 1937, and that including the 10 cases who had not completed the Immunisations at the end of the year, there were 158 Immunisations throughout the year. Immunisations are carried out at the Health Department, at No. 1, Grosvenor Road, weekly, and it is of interest to note that although the number of school children going for Immunisations tends to drop there seems a better response in reference to children under the age of 5 and this in all probability will indicate that when the present pre-school children attend school there will be greater number of cases already immunised than was the case for many years previously. Arrangements are in force whereby all swabs of susceptible cases and contacts are examined and of these 294 were negative and 17 positive. There was a reduction of 48 in the number of swabs examined during the year as compared with 1937.

A large number of swabs were taken by the Temporary Nurse during her visits to the schools and the homes.

#### SCARLET FEVER.

The number of cases of Scarlet Fever notified in 1938 was 66 as compared with 49 in 1937, thus there has been an increase of 17 during the year. 54 cases were admitted to Hospital as compared with 41 in 1937 and it is satisfactory to note that there were no deaths during the year. The case rate per thousand population was 2.5 as compared with 1.7 in 1937, and 2.41 for England and Wales. The absence of death indicates the absence of death rate per thousand population for England and Wales was 0.01.

The Ward Distribution is as follows :--

The one big feature in this distribution is the fact that nearly half of the cases occurred in the Maesydre Ward. There were 28 cases during the year as compared with 9 in 1937. Another satisfactory feature is the fact that the Grosvenor Ward there were 5 cases as compared with 13, especially in view of the fact that this Ward contains the War Memorial Hospital, to which I often pay visits to examine cases suspected of suffering Scarlet Fever. Another satisfactory feature is the drop from 13 to 1 cases in the Acton Ward.

#### PNEUMONIA.

31 cases were notified during the year as compared with 56 in 1937; this indicates a decrease of 25 cases. There were 21 deaths during the year as compared with 24 in 1937. The case rate per thousand population is 1.2 as compared with 2.1 in 1937, and 1.1 for England and Wales. The death rate per thousand population was 10.7 as compared with 0.9 in 1937.

#### OPHTHALMIA NEONATORUM.

OPHTHALMIA NEONATORUM.		CASES.		Vision	V:-:	Total	
	Natified	Tr	reated.	Vision Unim-	Vision Impaired.	Total Blindness.	Deaths.
	Notified	At Home	In Hospital	paired.			
	6	5	1	3		_	_

Of the above 6 cases, 2 left the Borough and have not been traced, so we are unable to state whether the vision was affected in any way. The Hospital case was at the Public Assistance Institute and was a case from outside of the Borough, and we have no information as to the effect on the eyesight.

As necessity has not arisen, no action has been taken under Section 66 of the Public Health Act Amendment Act, 1935, in reference to the prevention of Blindness. It has to be remembered however, that a certain proportion of the work of the Health Visitor is in reference to Cases of Ophthalmia Neonatorum when they arise, especially so amongst the poorer children.

#### ANTHRAX AND RABIES.

There have been no cases of locally contracted Anthrax in spite of an important skin industry in Wrexham, nor has there been a case of Rabies.

#### SMALLPOX.

No case of this disease occurred in the Borough. With regard to the treatment and isolation of Smallpox patients, it is satisfactory to note that the County Council of Denbigh have constructed a Smallpox Hospital at Rhydtalog, which is now available when necessity arises, but up to the present it has not been found necessary to make use of this building.

There have been no primary vaccinations or re-vaccinations under the Public Health (Smallpox) Regulations, 1917.

The following figures have been kindly supplied by the Clerk to the Public Assistance Committee, and include the Rural District.:—

	1932	1933	1934	1935	1936	1937	1938
Total Births	1381	1345	1344	1246	1412	1356	1381
Successfully Vaccinated	270	208	259	229	247	235	425
Insusceptible	6	1	4	3	-	-	1
No. had Smallpox	_	_	_	_	_	-	
Conscientious Objections	919	875	897	946	945	920	923
	(66.3%)	(65.05%)	(66.7%)	(72.7%)	(66.9%)	(67.8%)	(68.0%)
Died Unvaccinated	62	55	61	52	79	62	66
Postponed by Medical							
Certificate	51	12	40	23	39	37	45
Removed	53	10	67	52	76	85	108
Unaccounted for	24	184	16	41	26	17	23
Unaccounted for	24	184	16	41	26	17	23

#### ENTERIC FEVER.

There were no notifications of the Enteric type of Fever during the year as compared with 3 in 1937. The case rate per thousand population was 0 as compared with 0.03 for England and Wales. It is satisfactory to note the absence of Enteric Fever in our area, in view of the findings of the Croydon Epidemic Enquiry. It is satisfactory to note that the Water Supply in our area is above suspicion and is kept under continual supervision. The water has, for many years, been of the most excellent state of purity, especially in view of the complicated system of purification that is carried out by the Water Company.

#### PUERPERAL PUREXIA.

During the year there were 10 cases notified as compared with 7 in 1937. The notification rate per thousand population birth is 22.0 as compared with 17.9 in 1937. The corresponding rate for England and Wales was 14.42. It is satisfactory to note that there were no deaths during the year and this is the second year in succession that there have been no deaths.

#### VERMINOUS PERSONS.

There have been no cases of Verminous Persons requiring cleansing with the exception of an occasional child treated by the School Medical Service.

Action taken by the Borough in respect of Verminous Persons is discussed in the Chief Sanitary Inspector's Report.

Diseases.	Under 1 year	1-2	2—3	3-4	4—5	5—10	10—15	15—20	20—35	35—45	45—65	65 and over	Total
Small Pox Diphtheria Scarlet Fever Enteric Fever Puerperal Fever Puerperal Pyrexia Pneumonia Erysipelas Encephalitis Lethargica Cerebro-Spinal Fever	5		- 4 2 - - 1 - -	- 4 3 - - 2 1 -	- 6 7 - - - -	23 35 - 1 1 1	16 7 - 1 -	- 10 1 - - 3 1 -		- 1 2 - 3 5 2 -			74 66 — 11 31 13 —
TOTALS	5	3	7	10	13	61	24	15	26	13	14	5	196

### Summary of Nursing Arrangements.

#### Hospital and other Institutions available for the District.

- (a) General. There are two Voluntary Nursing Associations in the Borough providing nurses whose duties are purely the nursing of the sick. These Institutions are the Parish Nurse Charity and the Wrexham District Nursing Association.
- (b) INFECTIOUS DISEASE. There are no arrangements, either voluntary or official for the nursing of cases of Infectious Disease in the home, but arrangements could be made by the Council if necessity arose.

#### Midwives.

There are 14 midwives in the Borough, all of whom are practising Midwives and are under the control of the County Council.

#### Maternity and Child Welfare.

The premises used for the Maternity and Child Welfare Centre are at No. 1, Grosvenor Road, assisted by the Voluntary Ladies' Committee of the Civic Guild of Help. Consists of weighing room, waiting room and consulting room.

Infant Welfare Clinics on Mondays and Wednesdays each week. Ante-Natal Clinic 10 a.m. Wednesday, under Dr. Katharine Drinkwater.

#### Aural Clinic.

Arrangements are now in force in the School Medical Service and no doubt the same would apply to the Maternity and Child Welfare Centre whereby cases of Mastoid Infection are

admitted to the War Memorial Hospital to be operated upon by Mr. Aiyar, although except in cases of grave emergency the parents are first of all informed of the presence of this infection and are given the opportunity should they so desire to obtain treatment privately.

#### School Clinic.

Treatment provided for minor ailments, skin diseases, tonsils and adenoids, dental defects, including orthodontic treatment and defective vision. Open daily 9 a.m. to 5 p.m. Orthopaedic treatment in conjunction with the County Clinic at 16, Grosvenor Road.

#### Tuberculosis.

Consultation Clinic for Wrexham and District in Grosvenor Road, in the Denbighshire and Flintshire Area of the Welsh National Memorial Association. Staffed by Tuberculosis Officer and an Assistant Tuberculosis Officer. Open for consultation on Mondays and Thursdays of each week.

#### Venereal Diseases.

The treatment and investigation of Venereal Diseases are under the control of the County Council. A Clinic is provided at the War Memorial Hospital on Mondays for Males, and Fridays for Females.

#### Hospital Accommodation.

- GENERAL. (a) Wrexham War Memorial Hospital, 109 beds. Under Voluntary contribution.
  - (b) Croesnewydd Hospital, 103 beds. Under Public Assistance Committee.

Tuberculosis. Beds available for Wrexham cases in the Sanatoria of the Welsh National Memorial Hospital at Talgarth Sanatorium (men), Llangwyfan Sanatorium (women and children and surgical), and at Meadowslea Hospital, Penyffordd.

Fever. Wrexham Fever Hospital. Property of the Wrexham Rural District Council. Administered by Joint Committee, with Representatives of the Wrexham Rural District Council, Wrexham Borough, Llangollen Urban District Council, Ruthin Borough and Rural District Council, Overton Rural District Council, and Hiraethog Rural District Council, for all of which Authorities beds are allotted. On the basis of the Ministry of Health, the present accommodation is 91 adults including 11 Isolation Cubicles, together with an operating theatre which is necessary for any Hospital.

There are two private Nursing Homes in the Borough for maternity and other cases.

RUABON MATERNITY HOSPITAL. Complicated cases of confinements are sent to the Ruabon Maternity Hospital under the Denbighshire County Council and if any cases of puerperal sepsis should arise thereat the case is transferred to the Isolation Hospital where it is isolated in a cubicle.

#### Smallpox.

A Hospital for Smallpox Cases has been constructed by the Denbighshire County Council which is available for the Borough if the necessity arises.

#### Orthopaedic Cases.

At the Robert Jones and Agnes Hunt Orthopaedic Hospital, supplemented by After-Care Treatment at the County Clinic, 16, Grosvenor Road, Wrexham, staffed by personnel from the Orthopaedic Hospital aided by a strong band of voluntary helpers of local ladies.

#### Artificial Sunlight Clinic.

During the year 20 children were treated and paid 83 visits with a marked improvement.

#### Institutions.

Accommodation for convalescent or debilitated persons is provided for residents in Wrexham and District in the John Jones' Memorial Homes at Rhyl for adults, and at Minera for adults and children.

The Public Assistance Committee have institutions for homeless children at Little Acton and in Benjamin Road.

There is also St. Giles' Home for Waifs and Strays (Church of England) for boys under 12 years of age.

Unmarried Mothers, Illegitimate Infants, in the area-No Institution.

#### Ambulance Facilities.

- (a) Infectious Cases. Motor Ambulance attached to the Wrexham Fever Hospital.
- (b) Non-Infectious and Accident Cases. Motor Ambulance attached to the St. John's Ambulance Association, Wrexham Branch.

The following report has been received from the Honorary Secretary of the Local Branch, to whom I am greatly indebted for the information :—

" During the year	r ended	31st D	ecembe	r, 1938	:	
Total number of	cases car	ried				1,307
Mileage run						12,594
Road Accidents						118
Mileage run						589
Number of cases				endered		319
Public functions	attended					509
Total hours of du						10,122."

- (c) Ambulances attached to certain collieries which are used for bringing cases of accident to the War Memorial Hospital.
- (d) There is no special Ambulance for Maternity cases, and, if necessary, the St. John's Ambulance would be available.

#### Public Health Officers of the Local Authority.

- (1) The Medical Officer of Health also undertakes duties of School Medical Officer for the Borough and Medical Officer to the Child Welfare Centre. In addition to these appointments he is Certifying Officer under the Mental Deficiency Act for the School Medical Service, Medical Officer of Health to Wrexham Rural District Council and Medical Superintendent of the Wrexham joint Fever Hospital. As respects all these appointments the Medical Officer of Health is a full time official but is for each Authority a part time Official.
- (2) Dr. Katharine Drinkwater acts as Assistant School Medical Officer to the Borough, and as Assistant Medical Officer to the Maternity and Child Welfare Clinic, and as Medical Officer to the Ante-Natal Clinic.

- (3) (a) The Chief Sanitary Inspector is Mr. L. A. Stroud, who is a certified Meat Inspector.
  - (b) Mr. J G. Wilkes, Sanita: y Inspector, who also is a Certified Meat Inspector.
- (4) (a) The Health Visitor, Mrs. Moore, possesses the Health Visitor's Certificate of the Royal Sanitary Institute. Her duties as Health Visitor occupy the whole of her time.
  - (b) Nurse M. Lloyd Jones acts as a Health Visitor and School Nurse.
- (5) Mr. Ross Wallis acts as Dentist to the School Medical Service and his appointment is a part time appointment, also as Dentist for Ante-Natal cases if the health of the expectant mother is prejudiced by sepsis.
  - (6) Nurse L. Griffiths occupies the position of School Nurse.
  - (7) Nurse A. Nicoll, Temporary Infectious Disease Visitor.
  - (8) (a) Miss B. Probert, whose duties are divided between the Health Department and the School Medical Service, altogether making a full time appointment.
    - (b) Mr. John Morris, Junior Clerk in the Health Department.
    - (c) Mr. Herbert Roberts, Clerk to the Health Department.
  - (9) Mr. Bernard Jones and Mr. S. J. V. James, Pupils in the Health Department.

#### HEALTH EDUCATION.

No Exhibition was held during the year, although arrangements were made for Health Education during Health Week, chiefly through the Schools. The School Medical Service arranged for two visits by lecturers from the Dental Board and at the same time co-operates with the Welsh National Memorial Association whenever their lecturer is desirous of giving a course of lectures to the school children in the Borough.

#### CHEMICAL AND PATHOLOGICAL WORK.

The chemical and bacteriological analysis of water, together with the examination of blood for the widal test for Typhoid, are undertaken by the Clinical Research Association, London, whose reports are included in my routine Monthly Reports.

The chemical and bacteriological analyses of milk are undertaken by the University of North Wales, Bangor, and Dr. Grace, of Chester, who have also examined milk to detect the presence or absence of tubercle bacillus and in more than one instance the report was positive.

#### MATERNITY AND CHILD WELFARE.

	1933.	1934.	1935.	1936.	1937.	1938.
Number of Mothers with Babies attending						
the Maternity Centre	477	500	714	749	830	909
Total attendance of Mothers with Babies	6316	7207	8710	8117	9044	10687
Average Sessional Attendance (per Baby)	13.2	14.4	12.5	10.8	8.3	11.7
Average Sessional Attendance	63.1	71.3	87.09	81.17	90.44	106.87
Number of Medical Consultations	915	1132	1219	846	1033	898
Ante Natal Cases	68	82	97	91	111	139
Ante Natal Attendances	208	231	331	384	566	577
Post Natal Cases	_	_	_	_	-	12
Post Natal Attendances	_	_	_	-	_	12

The above table indicates that there has been a still further increase in the number of Mothers and Babies attending the Clinic during the year. The number has increased by 79 and the actual number is the highest on record. It indicates that the work of the Centre is increasing from year to year and shows the appreciation on the part of the Mothers and the facilities organised for their benefit, by the Maternity and Child Welfare Committee. Of the 909 Babies, 447 were under the age of one and 462 over the age of one. The total attendances of Mothers and Babies, amounted to 10,381 and this is another high record. The number of children attending the Centre under one year of age has increased by 34 and those over the age of one have increased by 45. The average sessional attendance for Babies was 11.41 as compared with 8.3 in 1937, and the average sessional attendances was 103.81 as compared with 90.44 in 1937. This is another high record and is some indication of the large amount of work done in the Clinics which are held on two afternoons a week, namely, Mondays and Wednesdays. The fact that the average sessional attendances has increased above the 100 mark is a very satisfactory feature of the work, especially when one takes into consideration the fact which has been repeatedly stated in my previous Annual Reports that climatic conditions influence, to a marked extent, the attendance at the Centre. Of the total attendances at the Centre 7,245 were in respect of children under the age of 1 year as compared with 6,562 in 1937, or an increase of 683 whereas 3,136 children had attended between the ages of 1 and 5, as compared with 2,482 in 1937, or an increase of 654. Of the children under 1 year of age 385 attended for the first time, whereas of the children over the age of 1, 48 attended for the first time. Of the children under the age of 1, the average attendance was 16.0 whereas those over the age of 1 completed 6.9 attendances. The average attendances of those under one is practically identical with that of the previous year, but those over 1 paid an average of one attendance more during the year.

The Medical Consultations amounted to 898, or a decrease of 105 during the year.

With reference to Ante-Natal cases, 139 women attended as compared with 111 in 1937, or an increase of 28 and these made 577 attendances as compared with 566 in 1937. In addition to these, 12 Mothers attended as Post-Natal cases. One cannot emphasise too much the importance of attending the Ante-Natal Centre and the fact that for at least 2 years there have been no Maternal deaths is an indication to the value of this shpere of Public Health.

During these visits the Mother is thoroughly examined and a provision of extra nousirhment including milk and vitamin provision is arranged.

In my last Report I referred to the fact that there was a definite overcrowding in the Centre and that arrangements were being made for structural alterations in the Clinic in order to deal with this state of affairs. These arrangements were completed towards the early months of 1939. The room previously used by my Clerk and myself was converted into a Waiting Room. This is a very great improvement on the state of affairs in previous years when everybody tried to get into the room at the same time and the atmosphere of the Weighing Room was anything but hygienic, especially when climatic conditions necessitated the closing of the windows.

To accommodate the work of the Clerk and myself two additional rooms have been made in what was previously the Caretaker's House and for the Caretaker a new house has been built. In the old days my room was up-stairs but owing to the increase of work in the Sanitary Inspector's Department, the room had to be "loaned" to the Sanitary Inspector, thus making it very inconvenient for me should I require any private consultations.

One important factor of the Maternity Centre is the arrangement for the supply of milk at cheap rates through the Chemists and also the gratuitously supply of milk through the Centre. The present milk supply is excellent and we have far fewer complaints than was the case with the previous contractor.

The amount of milk supplied free of charge is as follows :-

Dried Milk Fluid Milk	::	2,006 lbs. 6,112 <sup>3</sup> / <sub>4</sub> gals.	 170 700		4
		TOTAL COST	 £871	3	6

The number of gallons of liquid milk provided to Mothers and Babies has increased by  $1,379\frac{3}{4}$  gallons, whereas the dried milk given has increased by 192 lbs. The total cost of milk during the year was £871/3/6 as compared with £638/3/10 in 1937, or an increase of £232/19/8. All cases requiring free milk are dealt with individually and all new cases are reported to the Maternity and Child Welfare Committee, who give necessary instructions.

It has to be borne in mind that many children under the age of 5 attend the Elementary Schools, especially the Nursery Classes. and thus become eligible for free meals and free milk in the Schools, and this is especially the case in the Institute at Spring Lodge, which caters primarily for the children living in the Spring Lodge and Maesydre Estates and the immediate neighbourhood.

One would like to appreciate the arrangements made by the Maternity Sub-Committee for the Annual Tea to Mothers and Babies, and this function is always well attended and is very much appreciated by the Mothers attending the Centre as well as giving them an added interest in Maternity and Child Welfare Work. One also wishes to acknowledge the generosity of Alderman and Mrs. Aston in arranging the Joy Centre for the Annual Tea.

The successful administration of the Maternity Centre could not be carried out without the help of Voluntary Workers in addition to the Health Visitor, and the Medical Staff, and one cannot forget the help given by the Child Welfare Sub-Committee.

Cases of complicated confinements are admitted by arrangement to the County Maternity Hospital at Ruabon, to which Institute 7 Patients were admitted during the year.

#### Number of visits paid during the year by Health Visitor.

(a)	To expectant Mothers		 First Visits	 121
			Total Visits	 321
(b)	To children under 1 year of age		 First Visits	 424
			Total Visits	 2848
To	children between the ages of 1 and 5 y	ears	 	 2424
	Total Visits		 6138	

#### Number of Babies registered with Medical Officer of Health.

Number of	Babies no	tified	to Medi	ical Off	ficer of	Health	1	 	 510
Males								 	 247
Females								 	 263
Number of	illegitimat	e bab	ies					 	 9
Number of								 	 15
Number of					ırs			 	 10
Number of				S				 	 16
Infantile M	lortality R	ate						 	 59.7

He	alth Visitor's	work a	t Hom	es and	Centre								
	Number of H Number of H											468 21	
	Number of T											1	
Cor	ndition of Chil	d.											
	Good											423	
	Bad Indifferent											15 12	
	Indirector												
Cor	ndition of Mot	her.											
	Good											437	
	Bad											18	
-	Indifferent	***								**		5	
Cle	anliness of Ho	mes.											
	Clean											429	
	Fairly Clean											8	
	Dirty											13	
	Number of I	nfant V	Velfar	e Sessio	ons at C	entres		4.				100	
	Number of M									thems	selves		
	and over	rcrowde	ed hou	ses for	confine	ments						17	
	The Wa	rd distr	ibutio	n of In	fantile	Morta	lity wa	s :—					
N	mber of births	(noti-	A.	В.	C.	E.	F.	G.	M.	0.	W.D.	Tot	al.
	fied)		26	39	56	31	44	62	129	15	33	4	35
1411	T			2	6	5	2	2	7	1	1		26

#### ORTHOPAEDIC TREATMENT.

Arrangements for treatment and examination of children suffering from Orthopaedic defects until they reach the age of 5 remain as in previous years. Such cases are referred to the Orthopaedic Clinic at 16, Grosvenor Road, where they are examined by the Specialist personnel of the Robert Jones and Dame Agnes Hunt Orthopaedic Hospital, Oswestry.

During the year 52 children under the age of 5 were treated. This included 5 cases of congenital deformities, 13 of Flat Feet, 11 of Knock-knees, and 14 others; 3 Erb's Palsy, 2 Rickets, 2 Torticollis, 1 Hallux Vagus and 1 Spastic Monoplegia. During the year 3 cases were cured, including 1 of Flat Feet, 1 Rickets and 1 other. 1 case of Rickets was improved, 11 cases refused treatment, 2 cases left the district, I case was treated elsewhere and there were remaining on the books at the end of December 1938, 34 cases.

Diagnosis.	T	Total reatm		Cured.	In	nproved		Refuse eatmer	Left District.	Treated sewhere		on Books 1/12/38.
1 Congenital Deformities 2 Erb's Palsy 3 Flat Feet 4 Hallus Vagus 5 Knock-knees 6 Rickets 7 Spastic Monoplegia 8 Torticollis 9 Others		5 3 13 1 11 2 1 2		- - 1 - - - 1				1 1 4 - 5 - -	 1	 		3 2 8 1 5 — 1 2 12
TOTAL		52		3		1		11	 2	 1		34
Transferred to Sc  Preventive Case:-		l Medi	ical S	ervice					 	 		8
Knock-knees Flat Foot		_		_		_		_	 _	 _		_
		_		_		_		-	 _	 -		_
On Books 1/1/38.		dmitt ing 19		No. 7 durin	g 193		lurin	narged g 1938	On Boo 31/12/3			938.
29		31			60			26	34		348	

In addition to the above, 84 persons over the age of 14 were treated but the Local Authority has no jurisdiction over these cases and they come under the administration of the Denbighshire Voluntary Orthopaedic Association.

#### INFANT LIFE PROTECTION (Children and Young Persons Act).

The duties under this Act are carried out by 2 Health Visitors, who keep any case under observation and make the necessary investigations. 3 cases have been kept under observation, 14 visits paid, and 3 cases appeared in court, when the Health Visitor concerned gave evidence.

#### SCHOOLS.

Taken as a whole the Sanitary conditions and water supply of the Schools are satisfactory although there is still a large amount of work requiring to be done at the Rhosnessney School. In my School Annual Report for 1938 I raised the question as to whether this school has not outlived its usefulness. During the year, as has already been indicated, the temporary nurse was appointed to visit the schools in reference to cases of infectious disease, but during the last 8 months of the year the cases of infectious diseases were not excessive. Periodical visits are paid by the Sanitary Inspectors to the various Schools whenever necessary, in reference to Sanitary defects and disinfection in times of epidemics.

### Laboratory Work.

Facilities for bacteriological examination as follows :-

FEVER HOSPITAL LABORATORY.

For examination of throat swabs for Diphtheria.

WELSH NATIONAL MEMORIAL ASSOCIATION.

For examination of Sputa in Tuberculosis cases.

Diphtheria Antitoxin is supplied from the Fever Hospital to Medical Practitioners on demand.

#### Work done at the Fever Hospital Laboratory, 1938.

		Positive.	Negative.	Total.
Throat Swabs submitted by Doctors of Contacts	٠	17	294	311

#### Number of Articles Disinfected at Fever Hospital during the year :-

63 Blankets.	2 Bed Hangings.
46 Bolsters.	22 Bed-spreads.
41 Bolster Cases.	37 Quilts.
17 Cushions.	5 Curtains.
25 Mattresses.	I Carpet.
71 Pillow Cases.	16 Dresses.
97 Pillows.	7 Frocks.
18 Rugs.	8 Mats.
7 Pyjamas.	7 Overcoats.
6 Nightdresses.	28 Sheets.
56 Beds.	16 Miscellaneous.

#### RAINFALL.

The following Table shows the rainfall throughout the year. Records taken by Mr. T. Owen Jones, "Arvonia," Beechley Road, Wrexham, to whom I am greatly indebted.

		Wet Days.	Dry Days.	Rainfall in Inches.
January		19	12	3.51
February		6	22	0.56
March		3	28	0.36
April		2	28	0.26
May		13	18	2.72
June		10	20	2.47
uly		15	16	3.53
August	200	12	19	3.25
September		8	22	0.91
October		15	16	3.26
November		13	17	3.94
December	**	14	17	2.66
Total		130	235	27.43

It rained for 130 days of the year.

The wettest days were :—

1st June . . . . . . . 0.96 inches of rain.
25th August . . . . 0.88 inches of rain.
16th May . . . . . 0.74 inches of rain.
30th January . . . . . 0.68 inches of rain.

12th November .. .. 0.59 inches of rain. 27th October .. .. 0.57 inches of rain.

November was the wettest month with 3.94 inches of rain.

Total rainfall for the year was 27.43 inches.

The warmest days were June 7th and 8th, and August 3rd with a temperature of 78 deg. F. in the shade.

The coldest day was December 20th, with a temperature of 22 deg. F.

#### WATER SUPPLY.

During the year 4 samples of water were taken in the Borough; 3 of these were from the mains of the Wrexham and East Denbighshire Water Company. All 3 samples were excellent in character with a moderate degree of hardness and a very low bacterial count with a total absence of excremental pollution. The continued satisfactory state of the water is a matter for congratulation and indicates that the Company are keenly alive to the means of providing a pure and wholesome water supply.

In my last Annual Report I referred to the extensive new works which had been commenced at Pant Glas on the Ruabon Mountain; these works had continued during the year and at the time of making this Report are practically complete. These new works consist of a dam and the construction of a tunnel for the discharge from the conduit, in order to direct water to Ty Mawr Reservoir. I have already indicated in my previous Report that this water is obtained from a mountain moorland and although the Ruabon Water Company have watering rights on this area it is only the excess water which is so diverted into the Wrexham Water Works. The fact that these 2 Companies are in close relation to each other is an argument in favour of a suggestion repeatedly made by me to the Wrexham Rural District in my Health Reports, that water supplies in the East Denbighshire Water-shed should be under one control. The Company have a large system of purification and they themselves take samples of water at far more frequent intervals than we do.

The Analyst's Report is as follows :-

#### Wrexham and East Denbighshire Water Company.

		A. 22/3/38.	B. 7/6/38.	C. 22/8/38.
(1) Chemical.		22/0/00.	.,,,,	
Total solids (dried at 120°C.)		14.0	 12.5	 10.0
Combined Chlorine (as Cl.)		1.00	 1.40	 1.10
equivalent to Sodium Chloride (NaC	1.)	1.65	 2.31	 1.82
Nitric nitrogen (Nitrates)		0.04	 0.02	 0.03
Nitrous nitrogen (Nitrates)		Nil	 Nil	 Nil
Ammoniacal nitrogen		0.0008	 0.0020	 0.0018
Albuminoid nitrogen		0.0028	 0.0036	 0.0040
Oxygen absorbed in 4 hours at 27°C.		0.088	 0.060	 0.131
Lead or Copper		Nil	 Nil	 Nil
Temporary Hardness (equivalent to CaCo	0.)	7.0	 7.5	 4.0
Permanent Hardness ( ,, ,, ,,	)	2.0	 2.5	 3.0
Total Hardness ( ,, ,, ,,	)	9.0	 10.0	 7.0

#### (2) Bacteriological.

bated at 20°C.	on gelatine plate for three days is	s,incu- found				
to be			6 per c.c.	 5 per c.c.		7 per c.c.
	of organisms pro on agar plates, inc vo days is found to	ubated	2 per c.c.	2 par c c		1 per c.c.
at 57.5 C. 101 (V	vo days is found to	) be	2 per c.c.	 2 per c.c.	• • •	1 per c.c.
B. coli	not found in		100 c.c.	 100 c.c.		100 c.c.
Streptococci	not found in		30 c.c.	 30 c.c.		30 c.c.
Cl. Welchii (spores)	not found in		100 c.c.	 100 c.c.		100 c.c.

#### Remarks.

- A. The combined results show that this water is quite safe for drinking purposes.
- B. The combined results show that this water is of good quality and quite safe for drinking purposes.
- C. The results show that this water is safe for drinking purposes.

In addition to the other 3 samples from the Water Company's Mains, 1 sample was taken from a Well at Croeseneurys in reference to the possibility of pollution of the Well, near a farm, from the drainage of new houses which had been connected up to an incomplete sewer which had a blind end and which was virtually a Cess-pool.

The Analyst's Report is as follows and indicates some chemical pollution, "remote" in character; the bacteriological analysis indicates an excessive number of bacteria but no excremental types. The Analyst was of the opinion that this water was not entirely safe for drinking. Since this sample was taken arrangements were made with the Borough for the completion of the sewer which now enters the main sewerage system.

#### Croeseneurys.

(2) Bacteriological.

(1) Chemical.				Parts per
m				100,000
Total solids (dried at 120°C.)		 	 	51.5
Combined Chlorine (as Cl.)		 	 	3.00
equivalent to Sodium Chloride (N	aCl)	 	 	4.95
Nitric nitrogen (Nitrates)		 	 	3.64
Nitrous nitrogen (Nitrites)		 	 	traces present.
Ammoniacal nitrogen		 	 	0.0046
Albuminoid nitrogen		 	 	0.0080
Oxygen absorbed in 4 hours at 27	°C	 	 	0.093
Lead or Copper		 	 	Nil.
Temporary Hardness (equivalent to	CaCO, )	 	 	6.0
Permanent Harndess ( ,, ,,	,, )	 	 	25.5
Total Hardness ( ,, ,,	,, )	 	 	31.5

5200 per c.c.

The average number of organisms producing visible colonies on agar

plates, incubated at 20°C. for three days is found to be ......

The average num plates, incub				colonies on agar to be	760 per c.c.
B. coli		 	 	not found in	100 c.c.
Streptococci		 	 	not found in	30 c.c.
Cl. Welchii (spore	s)	 	 	not found in	100 c.c.

#### Remarks.

The chemical results indicate some contamination; the figure for Nitric Nitrogen is very high and shows "remote" pollution, the figures are not satisfactory for a shallow well water.

The bacteriological results show an excessive number of bacteria developing both at room temperature and at 37°C. Many of these are coliform in type, but have not the characteristics of excremental B. Coli.

Taking the result as a whole the water in our opinion cannot be regarded as entirely safe for drinking.

#### SWIMMING BATHS.

In the Borough we have 2 Swimming Baths in Tuttle Street, and during the year 2 samples of water were taken. The first sample showed the presence of Free Chlorine and although the chemical results were satisfactory, the bacteriological findings are sub-standard.

The second sample was taken two and a half months later and showed a high bacterial count but only a small proportion of organisms of excremental types. The Analyst stated that whereas the water came within the standard for bathing, it would be advisable to increase the dose of Chlorine during peak periods.

The Analyst's Report is as follows :-

#### Swimming Bath Water in use.

(1) Chemical.			A.		B.
			7/6/38.		22/8/38.
Solids in suspension		 pra	ctically Nil.		Nil.
Total solids (dried at 120°C.) in solution		 	61.5		65.0
Combined Chlorine (as Cl.)		 	6.40		5.80
equivalent to Sodium Chloride (Na	aCl)		10.56		9.57
Nitric nitrogen (Nitrates)		 	0.10		1.10
Nitrous nitrogen (Nitrites)		 dec	cided traces p	present.	traces present.
Ammoniacal nitrogen		 	0.0064		0.0020
Albuminoid nitrogen		 	0.0052		0.0020
Oxygen absorbed in 4 hours at 27°C		 	0.120	* *	0.084
Lead or Copper		 	Nil.		Nil.

#### (2) Bacteriological.

The average number of organisms producing visible colonies on agar plates, incubated at 20°C. for 3		
days is found to be	2680 per c.c	1870 per c.c.
The average number of organisms producing visible colonies on agar plates, incubated at 37.5°C. for two days is found to be	53 per c.c	520 per c.c.

B. Coli	 	 present in	 25 c.c.	 50 c.c.
Streptococci	 	 present in	 1 c.c.	 15 c.c.

#### Remarks.

A. The sample was bright and clear and contained practically no suspended matter.

On arrival at the laboratories Free Chlorine was present to the extent of 0.45 parts per million.

We presume that both samples were collected at the same time and if this is so we are surprised at the somewhat inconsistent results inasmuch as the bacteriological count is high and excremental organisms are present yet the amount of Free Chlorine in the chemical sample is high.

The chemical results are satisfactory but the bacteriological findings are substandard.

B. No suspended matter was present and the water was bright and clear in appearance.

On arrival at the Laboratories no Free Chlorine could be detected in the sample.

The chemical results are satisfactory.

The bacteriological examination shows rather high count figures but only a small proportion of the organisms present are of excremental types. Whilst the water comes within the standard for bathing it would seem advisable to increase slightly the dose of chlorine more especially during peak periods.

#### RIVERS AND STREAMS.

The River Gwenfro still passes through the town and is a perennial source of argument in the Health Committee. Unfortunately the River passes alongside industrial concerns as well as inhabited houses and makes an admirable receptacle for unwanted articles from the tenants of these houses and also for unknown persons who are apt surreptitiously to discard any articles which are not required.

I have already indicated in previous Reports that the River is liable to pollution from collieries and coal-washing concerns in the Rural District and occasionally there is ample evidence of pollution from these sources as noticed by the state of the River as it passes through the town.

During the year 4 samples of water were taken from the stream at different points. The first sample was taken at the bridge near the Fever Hospital close to the entrance of the River into the Borough and the Analyst's remarks indicate evidence of sewage pollution and also a fairly strong reaction for Tar Acids.

The second sample was taken near the effluent from the Milk Factory where there is a system of purification. The Analyst failed to detect the presence of casein but a stronger reaction for Tar Acids.

The third sample was taken from Rivulet Road, below the Gas Works and indicates a high ammoniacal nitrogen liquor probably due to gas liquor but the reaction for Tar Acids was very slight.

The fourth sample was taken at King's Mill at the other end of the Borough, actually above the confluence of the River Gwenfro and the River Clwyd.

The Analyst stated that the River, as it leaves the Borough shows a somewhat greater degree of pollution than when it enters. The River is kept under constant supervision by the Health Officials and in my capacity as the Medical Officer of Health to the Wrexham Rural District I inspect the River in the higher regions and make representations whenever necessary.

#### River Gwenfro.

	A. 23/6/38	B. 23/6/38	C. 23/6/38	D. 23/6/38
	Parts per 100,000	Parts per 100,000	Parts per 100,000	Parts per 100,000
Combined Chlorine (CL)	3.20	3.30	4.50	3.60
equivalent to Sodium Chloride (NaCl)		5.45	7.43	5.94
Nitric nitrogen (Nitrates)	0.20	0.04	0.22	0.28
Nitrous nitrogen (Nitrites)	decided traces present.	Nil	decided traces	decided traces
Ammoniacal nitrogen	0.0320	0.0764	present. 0.0904	present. 0.1048
Albuminoid nitrogen	0.0176	0.0628	0.0266	0.0190
Oxygen absorbed in 4 hours at 27°C	0.144	0.548	0.433	0.330
Lead or Copper	Nil.	Nil.	Nil.	Nil.

#### Remarks.

- A. The above results show some evidence of sewage pollution. The sample contained a small amount of suspended matter, chiefly vegetable in nature. Coal dust was not detected but a fairly strong reaction for Tar Acids was obtained.
- B. The Albuminoid Nitrogen and Oxygen Absorbed in this sample is higher than in the other three. This may be due to effluent from the milk "factories" but we cannot prove the presence of Casein. A stronger reaction for Tar Acids was obtained in this sample than in any other.
- C. The figure for Ammoniacal Nitrogen is high in this sample and is probably due to gas liquor; the reaction for Tar Acids is however very slight. A small amount of brown suspended matter was present but coal dust was not detected.
- D. All the above figures are higher than the corresponding figures for No. 32109 (Sample A), thus showing that the river as it leaves the Borough has a somewhat greater degree of pollution than when it enters. It gives a very faint reaction for Tar Acids.

#### DRAINAGE AND SEWERAGE SYSTEM.

The Borough has a modern sewerage system conveying the sewage to Five Fords Farm, Marchwiel, where it is treated on scientific lines. During the year additional works were completed by the provision of two percolating filters with the humus treatment tanks, and since the construction of these was completed the effluent is satisfactory although it contains an excessive amount of humus and the attention of the Consulting Engineers has been drawn to the fact.

During the year extensive work was carried out by the provision of new sewers in the Borough in order to disconnect the obsolete Sewage Works at Erlas and which will continue as a storm water treatment plant and once this extension system is complete, practically all the sewage material in the Borough, with the exception of the extreme northern end, will be conveyed to Marchwiel for treatment.

The scheme provided for a large length of new sewers, some of which will replace the old ones which will be used as storm water overflows and treated at the Erlas Works. In addition to these, extensions of the sewers were carried out in order to give the adequate facilities to the Rhosddu and Plas Coch areas.

During the year 4 samples of sewage and effluents were made. The first sample was taken from the crude effluent as the sewage enters the works and shows a strength of 218.

The second sample was taken from the effluent after passing through Percolating Filters and showed a strength of 77.

The third sample was that of the effluent from the Humus Tank and showed a strength of 22.

The final sample was that of the final effluent after land treatment and showed a strength of 11, indicating a purification of 95% during its discharge through the Sewage Works. The final effluent was regarded as satisfactory although it exceeded the limit for the dissolved oxygen absorbed test.

- A. Sample of Influent (Crude) Sewage.
- B. Sample of Percolating Filter Effluent.
- C. Sample of Humus Tank Effluent.
- D. Sample of Final Effluent after Land Treatment.

Report.	A. Parts per 100,000	B. Parts per 100,000	C. Parts per 100,000
Total Suspended Solids	63.0	5.0	3.75
Volatile Organic Solids (Loss of ignition)	52.0	4.0	3.00
Mineral Solids (Ash)	11.0	1.0	0.75
Chlorine present in the form of Sodium Chloride	15.5	14.9	14.5
1 137'	6.668	1.468	1.416
Albamain and Missaum	2.300	0.168	0.224
Oxygen Absorbed from N/80 KMnO, in 3 mins. a	at		
at 80°F	10.210	0.770	0.513
Oxygen Absorbed from N/80 KMnO, in 4 hour	rs		
at coof	21.030	6.660	1.540

#### Remarks.

- A. The "Strength" as calculated from the above data is found to be 218.
- B. The "Strength" as calculated from the above data is found to be 77.
- C. The "Strength" as calculated from the above data is found to be 22.

#### Report D.

			Parts	per 100,000
Dissolved Oxygen absorbed in 5 days at 65°F.		 	 	3.3
Suspended Matter				
Volatile Organic Solids (loss on ignition)		 	 	0.27
Mineral Solids (Ash)			 	0.03
Chlorine present in the form of Sodium Chloride			 	14.5
Ammoniacal Nitrogen				0.984
Albuminoid Nitrogen			 	0.088
Oxygen Absorbed from N/80 KMnO, in 3 mins. at 8	0°F.			0.103
Oxygen absorbed from N/80 KMnO, in 4 hours at 8	0°F.			0.565

#### Remarks.

The "Strength" as calculated from the above results is found to be 11, showing a purification of 95% when compared with the crude effluent.

The Royal Commission on Sewage Disposal suggests that 2 parts per 100,000 of Dissolved Oxygen and 3 parts per 100,000 of Suspended Matter should be regarded as the normal standards for effluents. On this basis it will be seen that this sample is satisfactory as regards Suspended Matter but exceeds the limit for the Dissolved Oxygen Absorbed test.

It may be of interest to note that during the year a sessional meeting of the Royal Sanitary Institute was held in Wrexham and the delegates attending this session were taken round the sewage works and expressed their appreciation of the work that had been carried out in the Borough.

#### SCAVENGING.

The arrangements for the collection and disopsal of house refuse remain as in previous years. The weekly collection is made by motor vehicles which convey the refuse to the Destructor at Willow Road for combustion and the remainder is dealt by control tipping off the Holt Road near Spring Lodge. The collection and disposal of house refuse is under the control and supervision of the Borough Surveyor. During the year 53 Ashpits were abolished and 118 portable Ashbins provided.

#### CLOSET ACCOMMODATION.

Practically all the houses in the Borough are connected up to the Sewers by means of a water carriage system and a great deal of the Sanitary Inspector's work deals with this question.

#### CAMPING SITES.

There are no sites for camping in the Borough and we have had no applications for licences under Section 269 of the Public Health Act, 1936. It has to be remembered that the Borough is primarily a residential and industrial area and although a certain amount of undeveloped land was added on to the Borough in the Extension in 1935, there is very little available land should camping be required.

#### SMOKE ABATEMENT.

This question is dealt with in the Chief Sanitary Inspector's Report.

#### FOOD POISONING.

During the year our attention was drawn to the injurious effect of a joint of mutton which the complainant stated had a tainted smell and that his wife and a visitor to the house suffered ill effects after consumption of the meat. The effects were headache, nausea, and abdominal pains followed by vomiting next morning.

The meat was stated to be sold in a repulsive state and even the dog would not eat what was left of the joint. The joint was purchased in the Borough and was a part of a carcase slaughtered in Liverpool and had been placed in a refrigerator.

The remains of the joint were sent to the Health Department and there was no evidence of any abnormal condition and it was sent to the Ministry of Health's Pathological Laboratories

and the Report from the Analyst stated that the analyst failed to find anything suggesting bacterial food poisoning, in the remains of the leg of mutton. The interior of the meat and the bone marrow were both sterile and the surface scrapings gave only a very few colonies of ordinary or bone bacteria.

The Analyst remarked "Don't you think this complaint is greatly exaggerated?"

The affected persons soon recovered from their indisposition.

#### NUTRITION.

The question of nutrition in the Borough is dealt with as far as is possible for a Borough of our size to do.

Children under the age of 5 are given free milk and also Cod Liver Oil. Expectant Mothers attending the Ante Natal Clinic are provided with free Milk and also Vitamin Capsules. School children are provided with milk in the Schools and also free meals and this question is discussed in full in my Report as a School Medical Officer.

For many years I have personally conducted special investigations on the heights and weights of the school children and this report is included annually in my School Medical Report for the year.

Advice is given to the Mothers of School Children wherever such is considered necessary on the question of nutrition but no lectures or films have been arranged during the year.

#### SHELLFISH (MOLLUSCA).

There are no shellfish layings in the Borough and it has not been found necessary to take any reaction in respect to that sold in the Borough.

#### SPECIAL REPORTS.

During the year Special Reports were submitted by me on the following subjects

- 1. The personnel and duties of the Health Staff.
- 2. Food Poisoning (Mutton).
- 3. After care of Tuberculosis Patients.
- 4. Diphtheria Immunisations.
- 5. A Report of the Royal Sanitary Institute Health Congress held at Portsmouth.

#### ROYAL SANITARY INSTITUTE.

In the Autumn a sessional meeting of the Royal Sanitary Institute was held in the Guildhall and was attended by 80 delegates from various parts of North Wales, Cheshire and Flintshire. The meeting was an extremely successful one and during the meeting the delegates were entertained to tea by His Worship the Mayor, who also subsequently gave an official Civic Welcome.

This was followed by two papers, one by myself on Physical Fitness in relation to Public Health; the other by the Senior Sanitary Inspector of the Wrexham Rural District Council on the Food and Drugs Act. The papers were followed by interesting discussions.

During the next morning visits were paid by the delegates to the Abattoirs, the Sewage Works at Marchwiel, and also to the Pit Head Baths at the Hafod Colliery. These excursions were extremely instructive and Dr. Porter, the Chairman of the Institute, and Mr. Dollymore, the Assistant Secretary, expressed their appreciation of the arrangements made.

#### HOUSING.

#### INFECTIOUS DISEASE AND COUNCIL HOUSES.

It will be noticed that this Table is divided into three, namely, infants under 5; school age from 5—14; and adults (over 14).

Scheme.		0-5 years.		5-14 years.	14 and over.		Total.
Acton Park.							
Scarlet Fever		 1		3	 1		5
Erysipelas		 _		_	 1		1
Manualus							<b>-</b> 6
Maesydre. Scarlet Fever				3	9		5
Diphtheria				3	 2 2		5
Pneumonia		 111111111111111111111111111111111111111		_	 ī	::	1
Erysipelas		 		_	 2		2
Lifsipelas					 _		-13
Spring Lodge.							
Scarlet Fever		 3		8	 _		11
Diphtheria		 4		7	 8		19
Pneumonia		 1		_	 1		2
							-32
Florence Street.							
Diphtheria		 3		1	 _		4
II							<b>-4</b>
Huntroyde.		1			9		3
Scarlet Fever Diphtheria		 1		_	 2		1
Dipittieria							- 4
Rhosddu.							-
Diphtheria		 _	100	_	 1		1
Pneumonia		 _		_	 1		1
							- 2
Bennions Road.							
<ul> <li>Diphtheria</li> </ul>		 _		2	 _		2
							- 2
Benjamin Road.							
Diphtheria		 -		1	 _		1
D 1							- 1
Bronydre.				0	1		3
Scarlet Fever				2	 1		- 3
Ashfield.							- 0
Pneumonia		2		2 000			2
Theumoma		 -				100	- 2
Price's Lane.							
Scarlet Fever		 _		2	 -		2
							<b>—</b> 2
		-		_	_		-
Тотаг	LS	 15		32	 24		71
				_	_		

During the year 123 houses were provided by private enterprise and at the present moment there is every indication that private enterprise is and will provide still more houses. A large number of houses have been built at Croeseneurys, The Garden Village, Rhosnessney and Acton, where there is every indication of extensive developments shortly to take place.

When the Borough was extended in 1905 a large amount of land, undeveloped, was brought into the Borough and if the present rate of building continues, it will not be many years before the whole of the Borough will once again be practically filled with houses.

In addition to the above number of houses, 151 which include 102 houses and 49 flats were constructed at the Whitegate Estate by the Council for the transfer of persons displaced from Clearance Areas, individually unfit houses, and the Abatement of Overcrowding.

The question of building houses at the Hermitage Estate has not yet received finality seeing that the completion of the purchase has not yet been affected, but in the next year or two extensive housing developments will take place in this area.

During the year a large amount of work was done under the Housing Act, 1936. 17 Demolition Orders were served under Section 11, 7 Undertakings were given by the Owners, 1 Closing Order under Section 12, 7 Undertakings and representations were made in respect of 5 houses but the consideration of these were adjourned. In respect to 4 of these houses an appeal was lodged in the County Court in 1939.

#### CLEARANCE AREAS.

During the year, 24 Clearance Areas were dealt with, 5 under Compulsory Purchase Orders, 16 under Clearance Orders, and  $3\frac{1}{2}$  areas were acquired by the Local Authority by agreement. Of these Clearance Areas  $18\frac{1}{2}$  were confirmed by the Ministry of Health, following an Official Enquiry but in 2 others the Order was not confirmed in order that in one case the Local Authority could accept an undertaking from the owner not to relet. In this case an Order was confirmed, subject to 4 of the houses being dealt with under part (ii) of the Act and these 4 houses were the subject of an appeal to the County Court.

These Clearance Areas have completed our programme in the Slum Clearance, although there are still a certain number of houses which have not yet received attention but will in the near future be represented to the Local Authority with a view of determining whether they should be demolished as individual unfit houses.

A large amount of useful information is given in the Chief Sanitary Inspector's Report and in his Report he mentions that at the end of the year there were still 150 dwellings over-crowded, containing 170 families and 1,159 persons.

There are no new cases of overcrowding reported during the year, 24 cases involving 162 persons were relieved as regards overcrowding during the year. 6 houses in which overcrowding occurred were dealt with by re-housing families in Council houses becoming vacant and 18 cases of overcrowding were abated by the tenant finding alternative accommodation, on account of the overcrowding.

The overcrowding of dwelling houses has been reduced from 2.78% on December 31st, 1937, to 2.4 on December 31st, 1938.

#### VITAL STATISTICS ACCORDING TO WARDS.

				Acton	Brynyffy'r	a Caia	Erddig	Fechan	Grosv'or	Maesydre	Offa	Wat's Dyke	Total
Acreage				571	282	423	253	258	239	489	171	232	2918
Population				2437	2615	2341	2456	2876	3602	5134	2068	2211	25740
Live Births				26	39	56	31	44	62	129	15	33	435
Birth Rate				10.6	14.9	23.9	12.6	15.3	17.2	25.1	7.2	14.9	16.9
Deaths				15	33	39	36	21	42	66	31	14	297
Death Rate				6.1	12.6	16.6	14.6	7.3	11.6	12.8	15.0	6.3	12.42
Infantile Deatl	ıs			_	2	6	5	2	2	7	1	1	26
Infantile Morta	lity	Rate	2	-	51.2	107.1	161.2	45.45	32.1	54.2	66.6	30.3	59.7
Notifications :-	_												
Diphtheria				3	3	11	8	5	12	28	-	4	74
Scarlet Fever				9	-	6	9	5	5	28	1	3	66
Enteric Fever			***		-	-	-	-	-	-	-	-	-
Tuberculosis				2	15	4	3	8	13	10	1	-	56
Pneumonia				2	7	1	2	4	10	4	_	1	31

# Annual Report of the Chief Sanitary Inspector for the Year 1938.

To the Chairman and Menbers of the Health Committee, Borough of Wrexham.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have the honour to submit my Second Annual Report upon the work carried out by your Sanitary Inspectors in connection with the Sanitary and Housing Administration and the supervision of food supplies within the Borough during the year, 1938.

The report is presented principally in tabular form with short reports on adminstrative activities, and provides a comprehensive survey of the work accomplished during the year under review. One of the satisfactory features is the progress made with the Housing Slum Clearance programme of the Coproration. In addition an attempt has been made to give some attention to the many branches of the work of the Department, but it has been impossible to carry out the desired number of inspections.

The only staff change was the appointment of Mr. H. Roberts as permanent clerk in my office, and I would express my appreciation of the action of the Health Committee in this respect. He has rendered considerable assistance and prevented excessive accumulations of clerical work.

I would again acknowledge the constant help and consideration I have received from the Chairman and Members of the Health Committee and my thanks are also due to Dr. T. P. Edwards for his kindness and help, and to my staff for their loyal support and hard work throughout the year.

I am.

Mr. Chairman, Ladies and Gentlemen,

Your obedient servant,

L. A. STROUD, M.R.San. Inst. Chief Sanitary Inspector.

#### SUMMARY OF SANITARY ADMINISTRATION.

#### GENERAL SUMMARY. Table No. 1.

Total Inspections made during the	year	 	 	 	10,064
Number of complaints received .		 	 		203
Preliminary Notices served		 	 	 	179
Preliminary Notices complied with:					185
Statutory Notices served		 	 	 	4
Statutory Notices complied with .					1
Total number of Letters received by					345
Total number of letters dispatched				 	1,213
Interviews with Builders, Owners a				 	316

#### ROUTINE INSPECTION WORK PERFORMED BY THE SANITARY INSPECTORS.

#### Table No. 2.

#### General Sanitary Work :-

Visits re:-								
Stables and other places where ar	nimals	are ke	pt					5
Ashpits and ashbins								219
Cesspools								26
Closets Water								6
Privy or Pail								18
Common Lodging Houses								134
Complaints								203
Dirty Houses								2
Drains —Existing			100					178
Obstructed								112
Relaid								179
Water Tested								53
Smoke Tested								83
Infectious Disease								130
Moveable Dwellings								92
Outworkers								12
Offensive Accumulations								21
Offensive Trades								49
Public and Private Conveniences		1.0		11				2
Rag Flock Acts —Inspections				0000				16
Samples					* * *		* * *	2
Data and Miss			1 4 4	***		100		38
Referred to other Departments				1.1				1
Cabaala								15
C1 A .			* +					56
Smoke Observations								32
Smoke, Special Visits	* *	**				1000		27
Theatres, etc					- 11			5
Verminous Premises								36
Verminous Piemises			19.1	100	4.4			13
		**		**				25
Water Supply		**	11	2.7	2.5			6
Water Samples				11				374
The state of the s	::	11	11					77.00
River Pollution		- 1.						7
River Samples							5.5	4

#### Housing. Houses Inspected 426 Houses Re-Inspected.. 320 . . . . . . Re-Overcrowding ... 71 . . . . . . . . Re New Tenants 305 . . . . . . . . . . . Miscellaneous 433 .. .. .. Factories, etc. Factories —Mechanical 82 . . . . . . . . Non-Mechanical.. .. .. 10 .. .. . . . . . . Domestic Factories .. .. 2 Bakehouses — Mechanical 27 Non-Mechanical 29 . . . . .. Workplaces .. .. .. 7 . . . . . . Meat and Food Inspections :-Public Abattoir (Day) ... Public Abattoir (Evening) ... 1,332 161 Private Slaughterhouses (Day) Private Slaughterhouses (Evening) Meat and Food Inspections (Day) 1,291 42 . . 1,763 Meat and Food Inspections (Evening) 39 . . 24 .. 11 37 47 11 .. . . .. .. .. 4 .. .. ... . . . . . 116 .. .. . . .. .. . . .. .. 205 .. . . .. .. .. . . Cowsheds and Farms.. .. 153 ... .. .. .. .. Street Food Vendors 8 Ice Cream Premises .. .. 15 Ice Cream Samples . . . . Samples —Milk (Bact.) . . . Milk (Biol.) . . . 6 .. 123 .. 43 Food and Drugs 14 SANITARY IMPROVEMENTS EFFECTED AND DEFECTS REMEDIED IN PURSUANCE OF PUBLIC HEALTH AND HOUSING ACTS, UNDER THE SUPERVISION OF THE CHIEF SANITARY INSPECTOR. Table No. 3. Houses :-Cleansed and Limewashed or Decorated ... 41 Roofs repaired .. .. 37 Walls Repaired 53 .. . . Ceilings repaired ... Floors repaired ... 13 .. .. .. .. 32 .. .. .. . . . . Chimney stacks repaired or rebuilt 14 .. .. . .

	Firegrates repaired or renewed								23
	Washing boilers repaired or renev	ved							11
	Doors and windows repaired or re	enewed	i						42
	Dampness remedied					* *			49
	Lighting improved								3
	Ventilation improved							* *	28
	Rain water gutters and down spor	uts rep	paired					4.	35
	Yard surfaces repaired or relaid								34
	Yard drainage improved								30
	Sufficient water supply provided								6
	Provided with proper food store								13
	Offensive accumulations removed Verminous premises disinfected								10
	verininous premises disinfected			**					13
Draina	œ·								
Diama									
	New Drains constructed								2
	Old Drains re-constructed								23
	Tests to new cast-iron drains								13
	Tests to new stoneware drains								65
	Tests to old drains, etc								58
	Drains —repaired or cleansed								44
	disconnected from sewer								7
	new inspection chambers	S							23
	ventilated								3
	under house, abolished								3
	additional gullies								49
	New Sinks fixed								7
	Sink waste pipes—trapped		,						21
	Soil and ventilating pipes repaired	or re	newed						10
Water	Closets :-								
water	Olosets .—								
	Cleansed and limewashed								22
	Repaired or reconstructed								28
	Pedestal wash-down W.C. basins f								56
	Light and ventilation improved								2
	Flushing cisterns repaired or renev								8
	Provided with supply of water								7
Ashpits									
Ashpits	-								
	Disused								53
	Portable ashbins provided	::			***				118
	Tortable asiloins provided			6	100		***	100	110
Commo	n Lodging Houses :-								
	Classed and limenshed								00
	Cleansed and limewashed						**		28
	Contraventions of Bye-laws							1.5	4
Houses	- let - in - Lodgings.								
	Cleansed and limewashed								4

Dairies	and Milk Shops :									
	Limewashed and cle	ansed					 			28
	Improvements						 			
	Discontinued						 			
Cowshed	is :—									
	Limewashed and cle	ansed					 			4
	Discontinued						 			
Fried F	ish Shops :									
	Premises cleansed						 			2
	Improvements			22			 	12.07	anii))	
	Nuisances abated						 			
Offensiv	e Trades (Excluding	Fish F	ryers) :	_						
	Limewashed and cle						 		. 20	10
	Nuisances abated						 			
Premise	s used for Preparatio		00a :							
	Limewashed and Cle	eansed					 			
	Improvements						 			
Factorie	s and Workshops :-									
	Limewashed and clea						 			9
	Improvements—Pub						 			-
	Lighting and ventila						 			-
	Unsuitable; defective				odation		 			
	Insufficient sanitary						 			
	Sanitary accommoda		ot sepa		r sexes		 			
	Abstract not fixed						 			1117
	Other contraventions	5				••	 **			
Shops :-	-									
	Insufficient Sanitary	Accor	mmoda	tion			 			:
Slaughte	r Houses :									
	Limewashed									20
Infectiou	is Diseases :									
	Rooms disinfected						 			410
	Books disinfected or						 			40
	Articles disinfected						 			516
	Articles destroyed									

## PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS AND REGULATIONS.

#### (a) Common Lodging Houses.

There are seven common lodging houses affording accommodation for 58 persons in 29 rooms, including one house used for accommodating married couples.

These premises are by no means ideal and are mainly lacking in means of escape in the case of fire, the provision of sanitary accommodation, facilities for personal ablutions and provision for the storage of personal effects.

The premises are kept under close supervision and are frequently visited and during the year 134 inspections were made for this purpose. Consideration has been given to the provision of a Municipal lodging house in Wrexham, and revised bye-laws for controlling this class of premises will shortly be adopted.

#### Houses - let - in - lodgings.

Conditions generally are not too satisfactory partly due to the practice of adapting premises without structural alteration. Supervision is found to be difficult in these premises with the type of tenant so often in occupation.

#### Cellar Dwellings.

As far as can be ascertained there are no cellar basement dwellings in Wrexham used for human habitation.

#### (d) Moveable Dwellings.

Ninety-two visits were made in respect of illicit camping with caravans in various parts of the Borough. Legal proceedings were instituted against the owner of an unlicensed camping site and three caravan dwellers, resulting in these vehicles leaving the district.

Few complaints were received during the year regarding moveable dwellings, and caravans coming into the town in connection with amusements are inspected as occasion arises.

#### (e) Offensive Trades.

Forty-nine inspections were made in supervising the following "Offensive Trades" carried on within the Borough, viz .:-

- (a) 1 gut scraper.

- (b) 2 tripe dressers. (c) 2 leather dressers. (d) 1 tanner. (e) 2 rag and bone decomposition 2 rag and bone dealers.
- (f) 20 fish fryers.

During the year three applications were received for consent to establish the trade of fish frying, one application being granted and two being refused.

Special attention has been given to fish frying premises as regard cleanliness of ranges and utensils and the wholesomeness of the food supplied.

#### Slaughterhouses (private).

There are five private slaughterhouses of which two are registered and three are licensed premises.

Frequent inspection is made principally in connection with systematic meat inspection and during the year 1,291 day visits and 42 evening visits were made for that purpose.

#### (g) Slaughterhouses (Public Abattoir).

The Public Abattoir continues to work satisfactorily and the number of butchers who make use of excellent facilities provided for the slaughtering and dressing of animals with up-to-date equipment and hygenic environments is now twenty-six.

No further progress has been made wirh the proposed provision of a cold store.

The provision of an additional pig lairage will be commenced shortly.

A deputation from the Oswestry Corporation and the Sessional Meeting of the Royal Sanitary Institute held at Wrexham visited the Abattoir during the year.

There were 1,332 day visits and 161 evening visits made to the Abattoir for the inspection of meat.

### MUNICIPAL ABATTOIR TRADING ACCOUNT FOR THE YEAR ENDING 31st MARCH, 1938.

Table No. 4.

EXPENDITURE.				INCOME.		
	t	s.	d.		£ s.	d.
Wages	. 412		3	Rent of Croft	Ĩ 0	0
Superannuation Contributions .	. 19	12	0	Slaughterhouses—Tolls	632 1	0
Water	. 61		11	Repayments for Water	3 19	9
Rates, Taxes				Repayments for Lighting	0 9	2
Tithes and Insurance	53	0	11	Sale of Condemned Meat	34 2	8
General Repairs				Sundries	0 14	0
and Sundries	44	7	11			-
Haulage	. 150					
Painting	. 145					
Lighting and Fuel	. 122	0	9			
Salaries Account	100	0	0	23 F 17		
Telephone	0	10000	100			
Printing, etc.						
Old Slaughterhouses		6				
Old Slaughterhouses—Provision fo						
debt to be allowed		0	0			
Compensation for Condemned Meat.		15		(Deficit)	1027 6	6
Loan Charges :—		-		(201011)		-
Interest 270 13 10	0					
Sinking Fund 187 0						
Official Co. 107 0	- 457	13	10			
					-	-
1	1,699	13	1		£1,699 13	1
X	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-			2,,000 10	-

#### (h) Places where Animals are kept.

Very little nuisance had been experienced during the year from the keeping of animals, five inspections being made for this purpose.

#### HOUSE DRAINAGE AND SANITATION.

A total of 469 visits were made in supervising improvements and reconstruction work in connection with the drainage systems of houses and other buildings. Eight existing drains suspected of being defective were opened and examined. The drains of 25 premises were reconstructed during the year in addition to many other minor amendments of drainage systems, and the Department supervised the laying of 467 yards of stoneware drain and 26 yards of cast iron drains and applied 53 hydraulic and 83 smoke tests to drain and soil and ventilating pipes. (For further detail see Table No. 3).

In every case in which new drainage work is executed, plans are made and filed by the Department for future reference.

During the year a circular letter was addressed to builders and contractors drawing attention to the necessity of giving the requisite 24 hours notice to the Local Authority of intention to repair, reconstruct or alter drains, in pursuance of Section 41, of the Public Health Act, 1936.

Three warnings were subsequently given regarding contraventions of this Act.

#### ATMOSPHERIC POLLUTION AND SMOKE ABATEMENT.

Number of complaints of Smoke nuisance	е гесе	eived				 2
Number of observations made of Industr	rial ch	imneys				 32
Number of nuisances observed						 11
Number of Statutory Notices served						 Nil.
Number of Intimation Notices served						 11
Number of visits to works and interview	s with	n Engine	eers ar	nd Own	ers	 9
Approximate number of Industrial Chim	neys	in the B	Boroug	h		 23

There is no atmospheric pollution gauge in the district so that no comparative statistics are available as to the extent of atmospheric pollution in the Borough.

No statutory action was taken in respect of smoke nuisances but in one instance a letter of warning was sent on the instruction of the Health Committee. In each case investigations were made as to the causes of the excessive and unnecessary emissions and recommendations were made in relation to stoking, management and improvements to plant, especially in connection with brickworks and breweries.

At one factory new apparatus was installed in the steam raising plant to reduce the emission of smoke.

No nuisance has been experienced from the emission of grit and dust, but a complaint of nuisance from fumes from a factory steam-raising plant in which the fuel is wood waste, was investigated.

It is anticiapted that bye-laws to regulate industrial smoke which will be shortly adopted will definitely assist in securing the abatement of the smoke nuisance in this district.

#### RAG FLOCK ACTS, 1911 and 1928.

There are no manufacturers of rag flock in the Borough but there are firms who use rag flock in upholstery and furniture manufacture, most of whom purchase it from manufacturers who guarantee it to conform to the requirements of the Rag Flock Regulations, 1912. Two samples of rag flock were submitted for analysis during the year and were certified to contain 2 and 6 parts per 100,000 of soluble chlorine respectively and to comply with the prescribed standard of the Regulations.

It was observed that there was a practice of using rag flock taken from articles of upholstery for remaking into new covers without steps being taken to ensure that the rag flock complied with the Government standard of cleanliness, and a letter of warning was sent to upholsterers with reference to this practice.

#### RIVER POLLUTION.

Frequent visits are made from time to time to various points of the streams within the Borough at which trade effluents are discharged. Four samples of water from the River Gwenfro were submitted for examination, particulars of which are given in the Report of the Medical Officer of Health.

#### DISINFECTION.

During the year investigations were made into the following notifiable diseases, viz.:—71 Diphtheria, 66 Scarlet Fever, and 16 Tuberculosis cases. Four hundred and ten rooms were disinfected by fumigation and spraying, 516 articles of bedding and clothing were treated by steam disinfection, 40 library and other books were disinfected or destroyed and 6 other articles were destroyed.

Steam disinfection is at present carried out by the Staff of the Isolation Hospital which serves a wide area, and the provision of a steam disinfecting plant by the Corporation would provide more adequate facilities for promptly carrying out these preventive measures.

#### ERADICATION OF BED BUGS.

Ten complaints were received and 36 inspections were made in connection with the infestation of dwelling houses by bed bugs. Disinfestation work was carried out by the Department at 5 Corporation houses and 8 privately owned houses, fumigation being by means of a sulphur preparation which has given satisfactory results.

Inspection was made of 43 Corporation houses which became vacant during the year for detecting bug infestation, and the homes of prospective tenants of such houses were also visited, and were bug infestation was evident, the furniture was treated by spraying with an insecticide such as "Flypic" or "Zaldecide" at the time of removal. Tenants of Corporation houses are encouraged to report any verminous infestation immediately.

#### SANITARY CONDITIONS OF PLACES OF ENTERTAINMENT.

There were 5 inspections made of places licensed for entertainment.

#### SHOPS ACTS, 1912 to 1936.

Thirty seven shops were inspected under Section 10 of the Shops Act, 1934, which relates to the provision in every shop in which persons are employed of suitable means of ventilation, lighting, temperature, sanitary accommodation, washing facilities and facilities for taking meals.

In 3 cases notices were served for the provision of additional sanitary accommodation.

As there are 785 retail shops within the Borough it is very desirable that a complete survey should be made as soon as possible to enforce these welfare provisions for shop workers.

#### SANITARY CONDITIONS OF OFFICES.

Additional sanitary accommodation and facilities for washing was provided for the female clerks of a factory as a result of informal action.

#### HOUSING ACT, 1936.

This year has been an unusually heavy one for the Department in relation to Housing matters.

There were 141 dwelling houses included in 24 Clearence Areas under Part III of the Act, which were dealt with as 19 Clearance Orders and 5 Compulsory Purchase Orders in respect of which 2 Local Inquiries were held by the Ministry of Health.

Twenty-four dwelling houses were dealt with under Part 11 of the Act, viz.:—17 Demolition Orders and 1 Closing Order were made and 7 undertakings by Owners not to relet until the houses were made for human habitation, were accepted by the Corporation.

It was not possible to carry out any systematic house-to-house inspection under the Housing Consolidated Regulations, 1925 and 1932, and it is very desirable that this work should be resumed as soon as possible.

The work of reconditioning working class houses has continued where complaint has been made, 147 houses having been made fit in consequence of informal action by the Department. Three statutory notices requiring repairs were served during the year.

Much time has been spent by your Sanitary Inspectors in interviewing Owners and Builders for the purpose of advising upon the satisfactory execution of work of a reasonably high standard.

#### REHOUSING.

There was no rehousing carried out during 1938, but it was decided that rehousing of displaced families from Clearance Areas and individual unfit houses in 1939 should include the disinfestation of furniture by hydrogen cyanide and the fumigation of the vacated houses before demolition.

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

#### 1. INSPECTION OF DWELLING HOUSES DURING THE YEAR.

(1)	(a)	Total number of dwelling houses inspected for housing defects under Public Health or Housing Acts	426
	(b)	Number of inspections made for the purpose	746
(2)	(a) (b)	Number of dwelling houses (included under sub-head (1) above, which were inspected and recorded under the Housing Consolidated Regulations, 1925-1932	Nil.
(3)		Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	150
(4)		Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	287

2.	REMEDY	Y OF DEFECTS WITH SERVICE OF INFORMAL NOTICES.	
		Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers	147
3.	PROCEE	DINGS UNDER STATUTORY POWERS DURING THE YEAR.	
A.	Proceedi	ings under Sections 9, 10, and 16 of the Housing Act, 1936.	
	(1)	Number of dwelling houses in respect of which notices were served requiring repairs	3
	(2)	Number of dwelling houses which were rendered fit after service of formnal notices:—  (a) By Owners	27 Nil.
B.	Proceedi	ngs under Public Health Act.	
	(1)	Number of dwelling houses in respect of which notices were served requiring defects to be remedied	Nil.
	(2)	Number of dwelling houses in which defects were remedied after service of formal notices:—  (a) By Owners	Nil.
C.	Proceedi	ngs under Sections 11 and 13, of the Housing Act, 1936.	
	(1)	Number of dwelling houses in respect of which Demolition Orders were made	17
	(2)	Number of dwelling houses demolished in pursuance of Demolition Orders	1
D.	Proceedi	ings under Section 12 of the Housing Act, 1936.	
	(1)	Number of separate tenements or underground rooms in respect of which Closing Orders were made	1
	(2)	Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	Nil.
4.	HOUSIN	G ACT, 1936, PART IV. OVERCROWDING.	
	A	(i) Number of dwellings overcrowded at the end of the year	150 170 1,159
	В.	Number of new cases of overcrowding reported during the year	Nil.
	C.	(i) Number of cases of overcrowding relieved during the year	24 162
	D.	Particulars of any cases in which dwelling houses have again become overcrowded after the Local Authority have taken steps for the abatement of the overcrowding	Nil

# HOUSES DEEMED UNFIT FOR HUMAN HABITATION. PARTICULARS OF ACTION UNDER THE HOUSING ACT, 1936.

#### 1. Demolition Orders (Section 11).

7, Prospect Place; 18, 19, 20 and 21, Barnfield; 7, 8, 9, 10, 11, 12 and 13, Willow Road; The Chalet, Rhosnessney Lane; 18 and 19, Belle Vue Road; 106 and 108, Borras Road.

#### 2. Undertakings given by Owners (Section 11).

40, Bridge Street; 41, St. George's Crescent; 1, 2, 3, 4 and 5, Dunks Cottages.

#### 3. Closing Orders (Section 12).

20a, Abbott Street.

#### 4. Representations made in pursuance of Section 11 (Adjourned Consideration).

4 houses situate at Felinpuleston; 13, Pentrefelin.

#### 5. Clearance Areas (Section 25).

	Areas (occion 23):		
Clearance Area.	Property.	How dealt with.	Remarks.
No. 19	1 & 2, Rowlands Cot- tages, Holt Road.	Clearance Order.	Confirmed
No. 20	1, 2 & 3, Owens' Cottages, Holt Rd.	Clearance Order.	Confirmed.
No. 21	1, 2, 3, 4, & 5, Dunks Cottages.	Clearance Order	Order NOT confirmed to enable Local Authority to accept undertak- ing from Owner not to re-let.
No. 22	13 houses situate at Felinpuleston	Clearance Order.	Order confirmed subject to 4 houses to be dealt with under Part 11 of the Act.
No. 23	1, 2, and 3, Little Fawnog.	Clearance Order.	Confirmed.
No. 24	4, 5, 6, 7, 8, 9 & 10, Little Fawnog.	Clearance Order	Confirmed.
No. 25	1, 2, 3 & 4, Pentre- felin, and 1, 2 & 3, Hughes' Court.	Compulsory Purchase Order	Confirmed.
No. 26	30 & 31, Pentrefelin & 1, 2, 3, 4, 5, & 6, Jones' Court.	Clearance Order.	Confirmed.
No. 27	14, 15, 16 & 17, Pen- trefelin.	Compulsory Purchase Order.	Confirmed.

	I—————		
Clearance Area.	Property.	How dealt with.	Remarks.
No. 28	21, 22, 23, 24 & 25, Pentrefelin, & 1, 2, 3 & 4, Belle Vue Road		Confirmed.
No. 29	8, 9, 10 & 11, The Walks.	Clearance Order.	Confirmed.
No. 30	6, 7, 8, 9, 10 & 11, Pentrefelin.	Acquired by Local Authority by agree- ment.	
No. 31	2, 6, 8, & 10, Smith- field Road.	Compulsory Purchase Order.	Confirmed.
No. 32	34, 35, 36, 37, & 38, St. George's Crescent.	Clearance Order.	Confirmed.
No. 33	1a, 3, 5, & 7, Holt Rd.	Clearance Order.	Confirmed.
No 34	3 houses, Bryn Estyn Cottages, Holt Road.	Clearance Order	Confirmed.
No. 35	42 & 44, Dean Road.	Clearance Order.	Confirmed.
No. 36	2, 3, 4, 5 & 6, Eagle Street.	Clearance Order.	Confirmed.
No. 37	1, 3, 4, 5, 6 & 7, Have- lock Square.	Clearance Order.	Confirmed.
No. 38	5,6 & 7, Mount Street.	Compulsory Purchase Order.	Confirmed.
No. 39	1, 3, 5 & 6, Jones' Court, Mount St.	Clearance Order.	Confirmed.
No. 40	{1, 2, 3, 4 & 5, Market   Street Square. 21, Market Street.	Clearance Order.  To be acquired by Local Authority by agreement.	Confirmed.
No. 41	2, 3, 4, 5 & 6, 25, rear of 25, 26, 27, 28, 29, 30, 31, 32, 33, 34 & 35, Market Street, & 15, 17, & 19, Holt Street.	Authority by Agree-	
No. 42	10, 11, 12, 13, 14 & 15, & Caravan, Market Street.		

#### OVERCROWDING OF DWELLING HOUSES.

A review of the Overcrowding taken at the end of 1938 revealed a decrease in the number of Overcrowded families within the Borough where Overcrowding does not constitute an offence until after alternative accommodation has been offered by the Local Authority.

The position regarding the extent of Overcrowding is as follows :-

(a)	Houses at which Overcrowding was abated by the Corporation	n reho	using	
	families in Council Houses becoming vacant during 1938			6

- (c) Houses at which Overcrowding occurred during the year.. .. Nil.

#### Table No. 6.

#### Percentage of Overcrowding in Dwelling Houses.

		At Dec. 31st, 1937.	At Dec. 31st., 1938.
Privately Owned Houses	 	2.60	2.11
Corporation Owned Houses	 	3.36	3.13
All Houses in Borough	 	2,78	2.4

#### Table No. 7.

#### Occupation of Overcrowded Houses (Equivalent Numbers).

		At Dec. 31st 1937.	At Dec. 31st., 1938.
By 5 Occupants or under	 	26	20
By 51 7 Occupants	 	93	85
By 71-9 Occupants	 	50	46
By 91-11 Occupants	 	4	4
By 111 13 Occupants	 	_	_
By 14½ Occupants	 	1	1
TOTALS	 	174	150

#### SUPERVISION OF FOOD SUPPLIES.

#### MILK AND DAIRIES.

The number of persons registered as wholesale purveyors and producers of milk within the Borough is 33, and as retail purveyors 86, making a total of 119. There are 20 registered cow-keepers with approximately 316 cows; also 47 dairies and milkshops.

During the year 2 Dealers' Licences were issued under the provisions of the Milk (Special Designations) Order, 1936.

#### Bacteriological Examination of Designated and Non-Designated Milk.

During 1938 there were 117 samples of milk submitted by this Department for bacteriological examination as compared with 51 in 1937, including samples of milk sold under the

Milk (Special Designations) Order, 1936. Of these 71 samples were of milk produced within the Borough as compared with 21 in 1937, and 22 samples were of Pasteurised milk supplied to Elementary School children.

An analysis of the results shows that of the total samples taken 6.8% were reported to be unsatisfactory as compared with 3.9% in 1937, and as regards designated milks 8.6% were reported to be unsatisfactory as compared with 4.7% in 1937.

The increase in the percentage of unsatisfactory samples is probably due to the increased number of samples taken together with trouble experienced with pasteurised milk supplied to Elementary Schools during the year.

Steady improvement in premises and methods of production continues, and is reflected in the results obtained.

Five samples of Pasteurised Milk were also submitted to the Phosphatase Test and gave satisfactory results.

One sample of tainted milk, the subject of a complaint, was examined and it would appear that the taint was due to contamination by a disinfectant used in connection with a cowshed, and was not of bacterial origin.

#### Biological Testing of Milk for the presence of Living Tubercle Bacilli.

Forty-three samples of designated and non-designated milks were submitted for biological testing during the year, as compared with none in 1937.

Owing to disease among the guinea pigs, investigations on 5 samples were not completed. One sample or 2.6% gave a positive result, in respect of which appropriate action was taken.

#### MANUFACTURE AND SALE OF ICE CREAM.

There are a number of premises at which ice-cream is manufactured or sold and it will be necessary for all these premises to be registered by the Corporation on and after 1st October, 1939, under the provisions of the Food and Drugs Act, 1938. It will then be possible to exercise more efficient control over this class of premises than at the present time.

In order to ascertain the purity of ice-cream manufactured or sold within the Borough, 6 samples were submitted for bacteriological examination, 2 samples being certified as satisfactory and 4 samples or 66% being found to be unfit for human consumption by reason of their high bacterial content and presence of Bacillus Coli.

The Town Clerk wrote warning letters in respect of the unsatisfactory samples and advice was also given by the Department with a view to an improvement in the supply.

There is a long felt need for an official chemical and bacteriological standard for ice-cream

#### MEAT INSPECTION.

The following tabular statement, submitted at the special request of the Ministry of Health, shows that 100% of the animals slaughtered in the Borough of Wrexham at the Public Abattoir and Private Slaughterhouses were inspected. The total number of animals inspected was 25,084 of which 2,653 were found to be abnormal.

Table No. 8.

#### CARCASES INSPECTED AND CONDEMNED.

		CATTLE, ex'l'd'g Cows.		rs.	CALV	ES.	SHEI	EP &	Pic	ss.
	Abatt l	P.S.Hs.	Abatt P.	S.Hs.	Abatt P.	S.Hs.	Abatt	P.S.Hs.	Abatt.	P.SHs.
Number Slaughtered Number Inspected	452 452	637 637	41 41	36 36	170 170	90 90	6205 6205	5606 5606	8861 8861	2986 2986
All diseases except Tuberculosis:— Whole carcases condemned Carcases of which some part or organ	_	-	_	_	_	_	_	3	2	3
was condemned Percentage of the number inspected affected with dis- eases other than	28	33	-	4	-	_	29	101	349	107
Tuberculosis	5.0	6%	5.2	%	Nil		1.	1%	3.	8%
Tuberculosis only:— Whole carcases condemned Carcases of which	1		-	_	_	-	-		20	3
some part or organ was condemned Percentage of the number inspected affected with Tu-	24	14	10	10	-	-	-	-	825	324
berculosis		4%	269	6	Nil		N	il.	9.	8%

Table No. 9.

CARCASES OR PARTS OF CARCASES CONDEMNED AS UNFIT FOR HUMAN FOOD.

Species.			T.B.	Casualty.	Parasitic Diseases.	Bacterial Diseases.	Abnormal Patholog. Conditions	TOTAL.
Cattle, ex	xcluding		4	0.00.EV -	1			5
Cows Pigs			32	1	=		1	35
Sheep				_	_	_	_	_
Calves			-	_	-	_	_	_
TOTAL	s		36	1	1	1	1	40

Table No. 10.

VARIOUS ORGANS CONDEMNED AS UNFIT FOR HUMAN FOOD.

		Heads.	Lungs.	Hearts.	Livers.	Stomachs.	Kidneys.	Spleens.	Mesenteries.	Intestines.
Tuberculosis	Bovine Pigs Calves	17 173 —	57 494 —	2 466 —	9 427 —	3 26 —	1 44 —	3 31 —	5 84 —	1 35 —
Inflammatory Conditions	Bovine Sheep Pigs Calves	=	3 395 —	303	4 113	$\frac{2}{3}$	_ _ 1 _		_ _ 1 _	_ _ 3 _
Parasitic Diseases	Bovine Sheep Pigs Calves	=	2 18 3 —	1 3 —	51 110 36 —		1 -7 -	_ _ 1 _		
Abnormal Pathological Conditions	Bovine Sheep Pigs Calves				7 - 58 -					
TOTALS		190	972	775	815	34	54	36	90	39

#### UNSOUND FOOD VOLUNTARILY SURRENDERED.

The total amount of meat and other foods deemed to be unfit for human consumption and voluntarily surrendered as shown by the following table was 13 tons, 16 cwts., 2 qrs., 5 lbs., as compared with 15 tons, 19 cwts., 1 qr., 4 lbs., in 1937.

The whole of the diseased meat and offal was disposed of for treatment for the recovery of fats, etc., for commercial purposes, the price obtained, less costs incidental to such disposal being returned to the Butcher. The remainder of the unsound food was destroyed at the Corporation Destructor.

Table No. 11.

TOTAL WEIGHTS OF CARCASES, PARTS OF CARCASES AND ORGANS.

	Tu	berculo	sis.	Other Diseases.			
	Cwts.	Qrs.	Lbs.	Cwts.	Qrs.	Lbs.	
Carcases or parts of Carcases Organs	196		13 27	11 30	3 2	26 23	
TOTALS	. 233	3	12	42	2	21	

Table No. 12.

#### CANNED & OTHER FOODS, ETC., CONDEMNED AS UNFIT FOR HUMAN CONSUMPTION.

			Cwts.	Qrs.	Lbs.
Chilled Beef			 _	_	18
Corned Beef			 -	_	26
7 Rabbits	 		 -	-	10
Ham	 		 -	_	12
Maws	 		 5	-	-
Tinned Ham			 -	-	14
Mutton .			 -	-	6
	TOTAL	WEIGHT	 5.	3	2

#### SLAUGHTER OF ANIMALS ACT, 1933.

At December 31st, 1938, 34 Slaughtermen's Licences issued by the Corporation, were in force, and during the year 6 new-licences and 7 renewal of licences to slaughter animals were granted.

The provisions of the Act have, on the whole, been well observed and only one contravention relating to the slaughtering of animals by an unlicensed person was brought to notice, and this was dealt with by informal action. Electrical stunning apparatus is installed at the Public Abattoir and at two private slaughter houses for the stunning of calves, sheep and pigs.

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

It is with pleasure I again record the co-operation of Meat Traders in Wrexham which so greatly facilitates the work of your Inspectors in relation to Meat and Food Inspection and the supervision of food shops and stores. The quality of butchers' meat slaughtered in the Borough is remarkably good and I again record 100% inspection of meat slaughtered in the Borough. Insome instances meat is brought from sources outside the Borough.

Three contraventions of the Regulations relating to failure to take reasonable precautions to protect meat exposed for sale in open shop windows from contamination by the blowing of dirt and dust were dealt with by informal action.

#### RETAIL MARKETS.

One hundred and sixteen inspections were made to food stalls at which meat, fish, green grocery and other perishable commodities are sold in the Butchers', General and Vegetable retail covered markets, and conditions were found to be reasonably satisfactory.

#### STREET VENDORS OF FOOD.

Inspection of foodstuffs such as meat and fish hawked from vehicles and intended for the food of man was made as occasion arose, but it was not possible to inspect the premises at which these foodstuffs are stored.

#### MANUFACTURE AND SALE OF PREPARED FOODS.

It will be necessary for this class of premises to be registered by the Corporation on and after October 1st, 1939, in pursuance of the Food and Drugs Act, 1938.

#### FOOD AND DRUGS (ADULTERATION) ACT, 1928.

This Act is administered within the Borough partly by the Corporation and partly by the Denbighshire County Council. The proportion of samples per 1,000 of the population submitted for analysis by both Authorities during 1938 is 3.9%.

A total of 14 formal samples of milk were submitted to the Public Analyst by the Wrexham Corporation for chemical analysis, all of which were certified to be genuine and free from preservatives, colouring matter and excessive amounts of extraneous dirt. The average composition of the milks submitted was Fat 3.90%, and solids—not Fat 8.78%.

I am indebted to Mr. D. Wynne Green, Inspector of Weights and Measures, for the following information of the operation of the Act by the County Council during 1938.

Table No. 13.

Article		Number Taken.	Genuine.	Not Genuine.	Observations.
Milk		 56	52	4	Slightly below the standard.
Butter		 5	5	_	
Cream		 4	4	_	
Ice Cream		 3	3	_	
Sausage		 2	2	_	
Lord		 1	1	_	
Jam		 2	2	_	
Dan alex		 1	1	_	
M + D +-		 1	1	-	
01. 0.1		 1	1	_	
0 1 117 1		 1	1	_	
T' IT		 1	1	_	
D:		 1	1		
CI (CI 1: )		 1	1	_	
T 7 *		 1	1	_	
Cultones		 1	1		
Cata		 i	i		
0		 î	î	_	
M	::	 i	i	_	
D 1 D 1		 1	1		
Amm. Tinct. Quini		1	î	11 36 1 10	
rinni. Thiet. guin	iiic	 Acres de la constitución de la c			
TOTALS		 87	83	4	

In addition 14 samples of milk were tested informally.

#### FACTORIES, BAKEHOUSES AND WORKPLACES.

One hundred and sixty-nine inspections were made to factories and workplaces including bakehouses. Conditions were found to be satisfactory at most of these premises.

Two notices of occupation of factories were received from His Majesty's Inspector of Factories. No action was taken regarding Outworkers carrying on work in unwholesome premises.

The following tables showing particulars of inspection and action are similar to those issued by the Hone Office.

REPORT ON THE ADMINISTRATION OF FACTORY AND WORKSHOPS ACT, 1901, AND THE FACTORIES ACT, 1938 (WHICH SUPERSEDED THE ACT OF 1901 ON JULY 1st, 1938), IN CONNECTION WITH FACTORIES, WORKPLACES AND HOMEWORK.

Table No. 14.

1.—Inspection of Factories, Workshops amd Workplaces.									
	Number of								
Premises.	Inspections. (2)	Written and Verbal Notices. (3)	Prosecutions.						
FACTORIES with mechanical power FACTORIES without mechanical power OTHER PREMISES under the Act (including works of building and engineering construction but not including authorized propries)	109 60	17	=						
Totals	169	17							

Table No. 15.

2. Defects	found in	Factories.	Workshops	amd	Workplaces.
------------	----------	------------	-----------	-----	-------------

	N	Tumber of Defe	cts.	Number of defects in respect of which
Particulars. (1)	Found.	Remedied.	Referred to H.M. Inspector. (4)	Prosecutions were instituted. (5)
Want of cleanliness (S.1.)	9	9		
Overcrowding (S.2.)	-	_	_	_
Unreasonable temperature (S.3.)	-	-	-	_
Inadequate ventilation (S.4.)	-	-	_	_
Ineffective drainage of floors (S.6.)	_	_	_	_
finsufficient	1	1	_	_
Sanitary unsuitable or				
Conveniences \ defective	7	7	_	_
(S.7.) not separate for	The same			
sexes	1 4	1	_	_
Other offences		4	_	-
(Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order 1921, and re-enacted in the Third Schedule to the Factories Act, 1937)				
TOTALS	22	22	Nil.	Nil.
		-		

#### Home Work.

Number of outworkers returned	 	13
Number of lists received from employers	 	10
Number of employers	 	6
Number of inspections during 1938	 	12

#### Table No. 17.

## PREMISES WITHIN THE BOROUGH WHICH COME UNDER THE FACTORY ACT, 1937, NUMBER 239, CLASSIFIED AS FOLLOWS:—

Bakehouses					32
Tailors and Costumiers					12
Boot and Shoe Repairers					22
Upholsterers, Cabinet Makers	s, etc.				5
Garages, Motor and Cycle Re					38
Watchmakers					2
Builders and Plumbers					10
Electricians					7
Laundries					6
Smiths and Metal Workers					11
Dressmakers and Milliners					17
Concrete Workers and Mason	S				5
Photographers					4
Kitchens and Restaurants an	d other	food p	remise	S	21
Miscellaneous					40
Printing					7

#### INCREASE OF RENT AND MORTGAGE INTEREST RESTRICTIONS ACTS.

No applications were received for Certificates under these Acts.

#### RATS AND MICE DESTRUCTION ACT, 1919.

It is an interesting fact that 18 notifications of rat infestation were received during 1938. This is an increase over several years previously, and one is hopeful that it is an indication that the public is taking greater interest in rat repression and destruction.

No complaints were received regarding mice.

During the year 38 inspections were made in investigating complaints of rat infestation in addition to the work of the outdoor assistant. Sewers were baited with 760 barium carbonate and red squill paste baits of which 80% were taken. A number of infested premises were treated by "Horo" fumigation and on several occasions advice was given as to the most suitable poisons and methods to be used for destroying rats. In no instance was it found necessary to serve notice under the act.

Special efforts by means of newspaper publicity, the exhibiting of posters, and the distribution of handbills were again made by the Coproration in bringing National Rat Week before the public, and in my opinion, this co-operation with the Ministry of Agriculture and Fisheries has the effect or rekindling interest from time to time. The measures taken resulted in a number of notifications, including some from areas outside the Borough being received by your Executive Officer.

The work of rat repression and destruction is carried out systematically throughout the year.

#### WORK CARRIED OUT BY THE CORPORATION IN DEFAULT OF PROPERTY OWNERS.

In no case was it necessary to execute work in default of Owners.

#### LEGAL PROCEEDINGS.

Legal proceedings were instituted under the Public Health Act, 1936, Section 269, against 4 persons in connection with camping in caravans on an unlicensed site. Fines of five shillings were imposed in each case, the site having been vacated before an adjourned hearing.

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