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COUNTY BOROUGH OF HALIFAX HEALTH DEPARTMENT.

# ANNUAL REPORT ON THE HEALTH OF THE BOROUGH

For the Year 1924.

CYRIL BANKS,
M.B., B.S. (Lond.), D.P.H. (Sheff.),
Medical Officer of Health.





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Medical Officer of Health.



## Mealth Committee

(as on Dec. 31st, 1924).

711

#### mayor.

ALDERMAN JOSEPH HAROLD WADDINGTON, J.P.

ALDERMAN W. M. BRANSON, J.P., Chairman. Councillor A. G. FARRAR, Vice-Chairman.

Alderman J. BROOKSBANK.

, T. HEY, J.P.

A. W. LONGBOTTOM,

A. WALTERS. J.P.

., J. SUGDEN.

Councillor P. BARRETT.

Coun. J. FOSTER,

W. GREENWOOD.

F. SHARP.

H. THORP.

" F. SLATER, J.P.

" N. F. S. WINTER

## Sub=Committees

Appointed by the Health Committee.

### Fospital Sub-Committee.

THE CHAIRMAN. VICE-CHAIRMAN. ALDERMAN HEY. COUNCILLOR SHARP. COUNCILLOR SLATER.
,, FOSTER.
,, THORP.

#### Cleansing Sub-Committee.

THE CHAIRMAN.
VICE-CHAIRMAN.
ALDERMAN BROOKSBANK.
HEY.

ALDERMAN LONGBOTTOM.
COUNCILLOR BARRETT.
,, GREENWOOD.
,, WINTER.

#### Accounts Sub-Committee.

THE CHAIRMAN. VICE-CHAIRMAN. ALDERMAN SUGDEN. ALDERMAN WALTERS. COUNCILLOR BARRETT. WINTER.

### Maternity and Child Welfare Committee.

The Health Committee with the following additional Members:—
MR. CHARLES NUNN. MRS. LAVINIA LUMB.
MRS. ETHEL DENTON. MRS. FLORENCE WHITLEY.
MRS. M. A. TAYLOR, J.P.

### Representatives of the Council on the Halifax Society for the Blind.

ALDERMAN W. M. BRANSON. ,, T. HEY.

LONGBOTTOM.

COUNCILLOR BARRETT. FARRAR.

## Staff of the Bealth Department

(as on December 31st, 1924).

TI OF

\*CYRIL BANKS, M.B., B.S.(Lond.), D.P.H Medical Officer of Health and Chief Medical Officer of the Medical Services of the Corporation.

\*D. M. TAYLOR, M.A., M.D., D.P.H.

Assistant Medical Officer of Health, Clinical Tuberculosis Officer and Resident Medical Officer, Sanatorium.

\*A. LATCHMORE, M.D., ED.

Assistant Medical Officer of Health and Medical Officer to Maternity and Child Welfare Centre.

\*F. W. WATERWORTH, M.B., Ch.B., D.P.H.
Assistant Medical Officer of Health and Assistant School Medical Officer.

J. POLLARD, M.R.C.V.S., D.V.S.M., (Vict.) Veterinary and Meat Inspector.

t H. G. CLINCH,

Chief Smoke Inspector and District Sanitary Inspector.

†F. TEAL. †J. G. WALSHAW. †E. WILSON. District Sanitary Inspectors.

T. FEARNLEY, Shops Inspector.

DAVID TRAVIS, A.R.S.I., Inspector of Canal Boats, Fertilizers and Feeding Stuffs Act.

∥§\*ELSIE R. ORAM, Senior Health Visitor.

\*L. WOLSTENHOLME. \*E. MARSHALL. ||§\*M. H. SUTCLIFFE. |
§\*M. McCORMAC. ||§\*M. E. MAUDSLEY. \*E. G. TINDLE. |
Health Visitors.

J. W. JACKSON, Chief Clerk.

+CHARLES CARLTON. +HARRY LEAPER. H. CARLTON.
Assistant Clerks.

M. ROBISON, Matron of the Borough Hospital and Sanatorium.

P. SHARPE, Removal Officer.

\*W. DAVIDSON, Matron in charge, Sanatorium.

\*Salary contributed to, under Public Health Acts or by Exchequer Grants.
†Certificate Sanitary Inspector, Royal Sanitary Institute.
‡Royal Sanitary Institute Certificates as Sanitary, Meat and Smoke Inspector, and in advanced knowledge of Inspectors' duties.

§Certificate Central Midwives Board.

||Health Visitor's Certificate.

The Analyst for the Borough is Mr. H. T. LEA, B.Sc. (Hons.) M.Sc.; A.I.C.

## COUNTY BOROUGH OF HALIFAX.

## REPORT

OF THE

MEDICAL OFFICER OF HEALTH, FOR THE YEAR 1924.

## INTRODUCTION.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour to submit the 52nd Annual Report on the Health of the Borough, relating to the year 1924, together with an account of the activities of the Health Department during the year. In doing so I wish to place on record my thanks to the members of the Committee for their unfailing support of the efforts of the staff of the Department to carry out the work satisfactorily. I wish also to express my admiration of the way in which the members of the staff have performed their ever-increasing duties with enthusiasm and self-sacrifice. It is to be regretted that the headquarters of the department is still in the unsatisfactory office in the Town Hall, in spite of the Committee's desire to provide proper accommodation.

\* \* \* \*

The statistics set out on page 10 show that the population of the Borough is declining, the Registrar-General's estimate of the mid-year population being 98,750, a decrease of 1,090 from the previous year. The Registrar-General arrives at this estimate by adjusting the 1921 Census figure, after allowing for the balance between births and deaths and for the migration of population indicated by sources of information possessed by him (non-civilians are excluded). This estimate is used in calculating birth and death rates, although one is rather reluctant to admit such

a large decrease of population in one year. One fact stands out clearly—there were 30 more deaths than births; but this accounts for only a small portion of the decrease estimated, the remainder apparently being due to migrations out of Halifax, and exclusion of non-civilians.

\* \* \* \*

It is not the first time that an excess of deaths over births has been recorded in Halifax, but the previous occasions were accounted for by the war. In 1915 the excess was 41; in 1917 it was 169; it rose in 1918 to 530, while in 1919 it was 193. The number of births (1481) and the birth rate (14.9) are the lowest recorded in Halifax except during some of the war years, when the conditions were so abnormal. The following figures show how the birth rate has fallen:—

#### Birth Rate.

Average	10 years,	1880-188929.3
,,	,,	1890-189924.2
,,	"	1900-190920.0
,,	"	1910-191915.9
	1920	18.9
		17.6
		15.9
		I 5.2
	1924	14.9

The birth rate is declining generally through the country but it is particularly low in Halifax. According to the provisional figures on page 11 the 1924 birth rate for the great towns was 19.4 compared with Halifax 14.9. This fall in the birth rate is a thing which some will deplore, while others view it with equanimity. It does not appear to be a matter on which a Medical Officer of Health is called upon to express his opinions unless it can be shown to have some bearing upon the health of the community, and this will be discussed in a later paragraph.

\* \* \* \*

Turning now to the death rate it is unpleasant to have to record an increase in 1924 over 1923. The year was a bad one for the country generally, the provisional figures for the year showing an increase from 11.6 to 12.2 for England and Wales, from 11.6 to 12.3 for the great towns, while in Halifax the rate rose from 13.8 to 15.3. The following figures show the changes in death rate in Halifax over a long period:—

#### Death Rate.

Average	10 years,	1880-188921.0
,,	,,	1890-189918.6
,,	,,	1900-190915.3
,,	"	1910-191915.6
	1920	13.3
		i 3.5
		14.9
		13.8
	1924	15.3

The rates for recent years are not confrected according to the age and sex-distribution of the population, the figure for correction not being now supplied by the Registrar-General. Actually there were 1,511 deaths in Halifax in 1924 compared with 1,380 in 1923, an increase of 131. The chief cause of this increase was without doubt the epidemic of influenza which occurred in February, March and April which is dealt with on page 17, the mortality being severe among elderly people. There was a slight increase in mortality from infectious disease, but the table on page II shows Halifax to compare favourably with the rest of the country in this respect with the exception of influenza. Increases also occurred in deaths from diseases of the heart and circulation, but deaths from kidney and urinary diseases were fewer, as were those from diseases of the brain and nervous system!.

\* \* \* \*

The infant mortality of the country (number of registered deaths of infants in the first year of life calculated per thousand registered births) which reached the low level of 69 in 1923 rose during the year to 75. That of the great towns rose from 72 to 80. It is not surprising therefore to see that the rate for Halifax rose from 90 to 96. The following table shows how the infant mortality has fallen over a period of years locally:—

### Infant Mortality.

Average	10 years,	1880-1889159
,,	,,	1890-1899159
,,	,,	1900-1909121
,,	,,	1910-1919101
	1920	96
		99
		110
		90
	1924	96

The general trend of the infantile death rate over many years has been satisfactory and is usually attributed to general sanitary measures which have resulted in more healthy environment, also to the higher standard of knowledge of baby-culture possessed by the mothers owing to the teaching given by the health visitors and in the welfare centres.

I pointed out in the Report for 1922 that the saving lin infant life represented by the above figures mainly relates to children after the first month, that is between the end of the first month and the end of the year. There has been no improvement as regards the numbers born so weak that they die off in the first month of life, indeed the first month deaths totalled 57 per thousand births, an increase over the previous year and greater than was the case forty years ago. Against this, there were fewer still-births. Out of 85 infants who died in the first month 68 were certified as dying from premature birth, congenital debility or malformations. One wonders whether these figures ought to be taken into consideration along with the falling birth rate. In Halifax and other textile towns women find employment in the mills, contributing money to the family income which is specially welcome when unemployment is great among the men. In such circumstances children may be looked upon as a hindrance—the low birth rate in Halifax leads to the conclusion that this is so. Is the high mortality among the new-borns due to this cause? Do these weak infants represent children born in spite of attempts to prevent them being born alive? I ask these questions but cannot answer them, for there is no evidence available, and I should be glad to think the suspicion unjustified. But these possibilities should be kept in mind.

\* \* \* \*

The deaths of mothers from causes connected with child-birth, though forming only a very small part of the total mortality, must be the subject of study. It was pointed out in Dame Janet Campbell's report to the Ministry of Health on Maternal Mortality that the industrial towns of Yorkshire and Lancashire had an unsatisfactory record of maternal mortality, and the following figures were quoted for the four years 1919-1922:—

7.82 per thousand births. Halifax Rochdale ... 7.05 " Bury 6.43 Oldham 6.41 Dewsbury 6.34 ... Blackburn 6.19 Barnsley ... 6.15

However unpleasant the position of Halifax may be on the above list it is now possible to say that the rates for the two following years have been much lower. In 1923 with 10 deaths the rate worked out at 6.5 per thousand births, while in 1924 there were only six maternal deaths (none from sepsis) giving a rate of only 4.0 per thousand—the most pleasing feature of the statistics of the year. There has been greater attention paid to antenatal care through the Centre and the various institutions, and considerable publicity has been given to the need for this type of attention, and it may be that the improvement is a result of these things; on the other hand it may be a casual fluctuation only—time alone will show.

\* \* \* \*

To sum up, the statistics for 1924 are on the whole not good, though there are some satisfactory features. I can suggest no method of dramatic intervention by the authorities which will, as by the waving of a magic wand, bring about the desired improvements in the health of Halifax. The improvements must come gradually, brought about by the steady continuation of sanitary work, the demolition of slum property, the provision of better and more numerous houses, and such other measures as may be taken to improve the environment of the inhabitants. The campaign against infectious diseases and tuberculosis, the protection of food and milk supplies, the work of the infant welfare centres and the ante-natal clinics, and the medical supervision of the children in the schools must all be continued with vigour on such lines as promise success.

I am, Gentlemen,

Your obedient Servant,

CYRIL BANKS,

Medical Officer of Health.

HEALTH DEPARTMENT,
TOWN HALL,
HALIFAX.

MAY 8TH, 1925.

## REPORT.

## Ceneral Statistics.

Area (acres	s) .					13,984
Population	(1924)	-				98,750
year po the 1921 natural as indic General	gistrar-Gener pulation 192 I Census pop increase as e ated by source It will be figure for 19	4. He arr pulation, after videnced by es of inform e observed	ives at the er allowand births and ation posse that the es	e figure by ce for (a) deaths (b) ssed by the stimate is	y adjusti the rate migratio Registra 660 low	ng of on, ar-
Structurally 1921)	separate 					26,506
Number of 1921)	families					26,830
Rateable V	alue—£65	3,880.				
Sum represe	ented by	a penny Total				
Births-Leg Illeg	itimate gitimate				Birthrat	e 14.9
Deaths-1,5	11			D	eathrat	e 15.3
Number of birth:— From Se	women depsis		or in c			
Deaths of in Legitima	nfants und ite 94.					
Deaths from	n Measles	(all age	es)			8
Deaths from	Whoopi	ng Coug	h (all a	ges)		6
Deaths from of age)	n Diarrho	oea and	Enteritis 		r 2 ye	ars 10

r 1,000 ths	Total Deaths	75	96
Rate per 1 Births	Diarrhosa and Enteritis (under two years)	7.3	9.5
	Fzuenhal	0.46	0.45
on	Diphtheria	90.0	0.08
Annual Deathrate per 1,000 Population	Whooping Cough	0.10	0.12
oo,1 ra	Scarlet Fever	0.05	0.03
thrate po	Measles	0.12	0.18
nual Dea	xo4-llsm2	00.0	0.00
Anı	Enteric Fever	0.01	0.01
	VIL CAUSES	12.2	12.3
	Birthrate per 1,000 Total Population	18.8	19.4
		England and Wales	and Great Towns including London

(Provisional figures. Populations estimated to the middle of 1923 have been used for England and Wales and for the 105 towns. The mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards the group of towns).

## Notifiable Diseases.

The following Table shows the number of notifications received during the year, arranged so as to show the age-incidence of the cases and the number which were admitted to hospital; it also shows the number of deaths certified as due to these diseases:—

	Cases	to Hospitals	7		88		33		2		5		9		9			31					46		5		244	74.4
		Total	10	-	108	1	38	2	3	1	25	-	6	1	11	9		44	46	45	65		73	50	30	20	396	195
		65 and upwards	T	1	1	1	1	1	1	1	00	1	1	1	-	i		15	6	4	12		-	1	1	1	29	22
		45-65	1	-	-	1	1	1	1	1	10	1	1	1	-	7		10	24	14	26		12	7	-	1	50	19
year.		35-45	1	1	2	1	1	1	1	1	7	1	1	1	1	1		6	00	-	00		12	16	2	2	31	34
the y	SO	20-35	4	1	9	1	2	1	3	1	7	1	1	1	2	-		7	2	9	7		32	21	00	9	75	37
	TOD	15-20	3	1	00	1	5	1	1	1	7	1	1	1	-	1		3	1	4	1		10	4	5	4	41	10
during	PER	10-15	1	1	22	1	+	1	1	1	-	1	1	1	3	1		1	1	4	3		4	1	9	2	44	9
Diseases	E	5-10	1	1	44	1	11	-	1	1	1	1	1	1	-	1		1	1	5	-		7	1	7	2	70	9
Dise	A G	4-5	1	1	11	1	9	7	1	1	1	1	1	1	1	-		1	1	-	-		1	-	1	2	18	7
aple		3-4	2	1	4	1	7	1	1	1	1	1	1	1	7	-		1	1	1	1		1	1	1	1	10	1
Notifiable		2-3	1	1	-	1	3	-	1	1	1	1	1	1	1	1		1	1	3	-		1	İ	1	1	7	2
2		-2	1	1	9	1	2	-	1	1	1	1	1	1	1	1		1	2	3	-		1	1	-	1	12	4
		Under 1	1	1	1	i	1	1	1	1	1	1	6	1	1	1		1	1	1	4		1	1	1	-	6	5
		ASE	iver				***		ever				eonatorum		Lethargica		1	1				-S	ry		rms		fication	ths
		DISEASE	Typhoid Fever	Deaths	Scarlet Fev	Deaths	Diphtheria	Deaths	Puerperal Fever	Deaths	Erysipelas	Deaths	<b>Ophthalmia</b> Neonat	Deaths	Encephalitis	Deaths	Pneumonia-	Influenzal	Deaths	Primary	Deaths	Tuberculosis-	Respirate	Deaths	Other Fo	Deaths	Total Notificatio	Total Deaths

For notes on these figures see following pages.

### Typhoid (Enteric) Fever.

This disease, owing to the general improvement in the sanitary conditions of the country, has shown a remarkable decline. As Sir George Newman points out in one of his reports, the death rate from this disease in 1871 was 371 per million living; it gradually fell until in 1922 it was only 12 per million. This represents one of the greatest triumphs of Preventive Medicine. In view of the rarity of this disease in Halifax in recent years some anxiety was caused by a series of cases, ten in all, which occurred in 1924. With one exception, a fatal case, all the others were very mild indeed, and where blood tests were carried out the type of disease was found to be paratyphoid B. Five cases occurred within the first half of May-an unusual time of the year for this illness. Efforts were concentrated upon the problem of finding the source of the trouble, very extensive enquiries being made into every article of diet taken by the patients, but no common factor could be found. The cases arose in different parts of the town and it was impossible to trace any connection between them. A circular letter was addressed to all medical practitioners of the town advising them to be on the lookout for similar cases.

As outbreaks were occurring in other parts of the country, and cases were widespread throughout this portion of the West Riding, a number of medical officers met together and pooled the results of their enquiries, but to this day the origin of the cases remains unknown, and no particular article of diet was incriminated. The Ministry of Health kept in touch with the areas concerned through its medical inspectors, but was unable to elucidate the problem. The only satisfactory feature of the outbreak in Halifax was the mild nature of the illness.

#### Scarlet Fever.

The year was exceptionally good as regards this disease, the number of cases being one of the smallest on record.

## Diphtheria.

There were 38 cases notified. The number of deaths (5) was high in proportion to the number of notified cases. Four deaths took place in the Fever Hospital, and of these, three occurred within a few hours of admission, the patients being moribund when sent in. One death occurred in the Infirmary, the child being sent in for an immediate operation, in spite of which it died within a few hours, death being certified as due to diphtheria.

Attention is drawn to the need for IMMEDIATE medical advice in ailments of children, and especially when there is anything wrong with the throat, or when breathing is difficult. Diphtheria is a disease which comes on with very slight symptoms, and the patients are always more seriously ill than they seem to the inexperienced. The antitoxin treatment of Diphtheria, which is of such remarkable value when applied early, is of little use when several days have been wasted in the hope that domestic remedies may cure. Parents should keep diphtheria always in mind and send for the doctor early when a child is poorly.

The Health Department regards every case of Scarlet Fever and Diphtheria as a possible starting point of an epidemic, and prompt steps are taken to search out infected "contacts" so as to control the spread. In this work the active co-operation of the School Medical Staff is necessary, and is freely given, there being a systematic exchange of information between the two departments, and a definite working arrangement in operation.

### Puerperal Fever.

Only three cases occurred, with no deaths. One case was treated at home, one at St. Lukes Hospital and one in the Infirmary.

## Ophthalmia Neonatorum.

The following Table classifies the notified cases:-

	(	Cases.					
1		Treated.	Vision Unimpaired	Vision	Total	Death	
Notified	At Home	In Hospital	The state of the s				
9	3	6	7	*1		†1	

<sup>\* 1</sup> eye corneal opacity, other eye unimpaired. + Died Marasmus.

### Cerebro-Spinal Fever.

The Borough was free from this disease.

#### Measles.

This is not a notifiable disease and therefore the extent of its prevalence is only gauged by reports from the schools, from health visitors, and from general observation. An epidemic of a serious character occurred towards the end of the year, the fatal effects of which are not reflected by the death returns for 1924, but will be shown when 1925 comes under review. Health Authorities can do a little, but only a little, to keep down the mortality from this illness. Isolation in hospital is not regarded as worth the vast expense it would entail, for the patients are infectious for about four days before the rash appears, and would have already passed on the infection to others before being isolated.

To provide hospital treatment for cases complicated by broncho-pneumonia or other serious conditions requiring good nursing is an idea which appeals to the humanitarian instincts, but whether it would save life is another matter, for once pneumonia has set in the outlook is not good, wherever treated. Wards provided for such purpose would stand idle for very long periods, and the difficulty of securing nurses at short notice to staff them when required would be considerable. The whole problem of dealing with Measles is as difficult as it is serious.

Your Medical Officer prepared a leaflet of advice on Measles which was fortunately ready for distribution before the December epidemic commenced, and it was arranged that the School Medical Department should send large quantities of these to schools in which cases occurred, for widespread distribution. The Health Visitors were on special duties, visiting the homes where cases were known to exist, and paying house to house visits in the congested areas of the town, offering advice and leaving leaflets; the School nurses also undertook a certain amount of home visiting in connection with School outbreaks. The leaflet issued reads as follows:—

### ADVICE TO PARENTS.

- 1. Measles is not a trivial complaint. It kills far more children than do Scarlet Fever and Diphtheria put together.
- 2. It is specially dangerous to children in the first five years of life.

That is why it is wrong to say "Let him have it and get it over." Older children are less likely to die from it than young ones, so the longer it can be put off, the less danger there will be to the child when he does get it.

It is your duty to do all you can to prevent the disease from spreading, especially to children under five.

- 3. Measles begins with running nose, red and watery eyes, and sneezing. When measles is prevalent, if your child begins with these symptoms, isolate him at once, without waiting for the rash to appear, because he is specially liable to infect other children during this stage. The rash appears about the fourth day, but the child is infectious to others before the rash appears.
- 4. A child suffering from measles should be kept in bed in a ventilated bedroom for some days after the rash has disappeared, and until all cough has gone. He should be washed and kept clean, and special attention should be given to the cleansing of the nose, lips, and the inside of the mouth.

The matter from the eyes and nose is thought to be infectious; it should be wiped away with clean rag or tissue paper, which should be burnt at once.

The person looking after the child should change her apron or overall, and wash her hands before leaving the sick room.

Sunshine and Fresh Air help the patient to recover.

- 5. Measles is so dangerous that the wisest course is to call in a doctor, so that he may be on the look-out for complications and after-effects. Such complications and after-effects are:—Sore eyes, running ears, bronchitis, and pneumonia. (Even consumption sometimes results indirectly from Measles.) Your doctor can show you how best to deal with such things; proper care at the right moment may save years of suffering and expense.
- 6. Children recovering from measles must be kept away from other children for at least two weeks, and must not go back to school for three weeks from the appearance of the rash. During this period it is a wrong thing to send them to parties, picture-shows, Sunday school, neighbours' houses, or any place in which they might mix with other children.
- 7. The Head Teacher of the School must be informed whenever measles appears in a house. Other children of the family may continue to attend school if they have had measles, or if they attend senior departments, but if they attend infant departments, they must remain away from school until the Head Teacher permits them to return.
- 8. When the patient has recovered, give the sick room a thorough "Spring-cleaning," and leave the windows open so as to flood the room with fresh air. Steep the bedlinen in disinfectant solution, wash it, and hang it out in the fresh air.

9. Read this leaflet over again now; then keep it handy for reference. It has been sent to you by the Medical Officer of Health, Town Hall, Halifax, by authority of the Health Committee, and the advice it contains will be useful to you.

#### Influenza.

An epidemic of influenza occurred in Halifax commencing at the end of February, 1924, reaching its height about the middle of March and declining during April. It followed similar epidemics in towns lying East of Halifax, while in Lancashire it appears to have been at its height when the Halifax epidemic was declining. As influenza is not itself a notifiable disease there is no record of the actual number of people who suffered, but influenzal pneumonia is notifiable, and from the notifications received and from the Registrars' death returns, it is possible to gain some idea of the number of dangerous and fatal cases.

The general opinion of the doctors of the town as expressed to me during the epidemic was that the number of people affected was very large indeed, that the illness invaded all parts of the town, that it affected adults chiefly and that the proportion of serious or complicated cases was very small, the fatalities being chiefly among elderly people or those who were chronic sufferers from illnesses of the chest.

The term influenza is often loosely applied to attacks of the common "cold-in-the-head." True epidemic influenza is something quite different. In this epidemic the patients were taken ill suddenly with shivering, pains in the head or back, great prostration and in many cases vomiting with or without abdominal pain. Diarrhoea was frequently present. The temperature was high for three or four days and afterwards recovery was slow, there being loss of appetite, weakness, irritability, bad temper and great mental depression. The depression was characteristic of influenza, patients weeping on trivial provocation. Catarrh of the nose and respiratory passages was common, leading in some cases to bronchitis and in the worst to pneumonia. The incubation period so far as I was able to judge from cases coming under direct observation was rather less than fortyeight hours.

Although the proportion of deaths to cases is reported to have been small it is nevertheless true that the death rate during the epidemic period was higher than usual. For instance there were 73 deaths recorded as due to

influenza in the whole year as against 30 the previous year. There were 48 more deaths recorded as due to all forms of respiratory diseases other than tuberculosis than in the previous year. On the other hand deaths from pulmonary tuberculosis were down from 79 in 1923 to 50 in 1924, and it may be that a fair number of people who would have died shortly from tuberculosis were cut off by influenza and subsequent pneumonia, their deaths appearing in the returns as due to the epidemic and not as due to the disease from which they were previously suffering. Then again following the long and severe winter of 1923-4, it was to be expected that many elderly people would fall victims to respiratory disease during the severe weather of February and March, quite apart from the presence of the epidemic, and there would be a tendency to ascribe these deaths to the prevailing influenza complicated by pneumonia; indeed at such a time it would be difficult to differentiate between the causal factors of the various cases of pneumonia. It is quite impossible to say exactly how many deaths occurred as a result of the epidemic, which would not otherwise have happened.

The infection ran a sharp, severe and fatal course among the elderly occupants of the Gibbet Street Poor-Law Institution, which was very heavily hit.

As regards the steps taken by the Health Department, it may be said that although influenza is a disease which has been closely studied research has not yet provided a weapon with which the spread of the illness may be prevented. In urban communities people must of necessity mix together very freely and a highly infectious disease such as influenza spreads very rapidly. Not only has science failed to find any precaution which may be relied upon to prevent the spread of the disease, but it has failed to find any drug or system of treatment which will cure or which will prevent the illness from developing in a person infected. It is thought that a person who can maintain a high state of general health will be perhaps less likely to suffer to a serious extent when infected, but how many of us who live in industrial towns are so fortunate as to be in "the pink of condition" in the later months of such a severe winter as that of 1923-4? A medical officer of health is therefore likely to feel somewhat helpless in face of a threatened epidemic of influenza, for there is so little he can do with any hope of success.

One thing which was done was to secure prominence in the local press for an article giving simple hints about the illness, advising those taken ill to take to bed at once on the onset of the early symptoms and to call in a doctor without delay, together with other remarks which may have been helpful.

Steps were taken throughout the epidemic to ascertain to what extent the medical and nursing requirements of the people were being met by existing organisations, so that if occasion had arisen the Corporation might have been advised to make some temporary provision of hospital beds or nursing assistance. Apparently the existing organisations did not feel the strain unduly, and not a single application was made to the Health Department for help of any kind whatever.

A large number of the serious cases being in the Poor Law Institutions, the authorities there were able to do all that was necessary for them. It never became necessary to open any of the wards at the fever hospital for the reception of cases of pneumonia.

It will be noticed that on the accompanying table there are more deaths than notifications shown. This points to neglect to notify primary and influenzal pneumonia.

## Encephalitis Lethargica.

Eleven cases of this disease were notified, seven of them between early May and mid-June. The diagnosis was uncertain in some of them. Six of the cases were fatal. Of those who recovered only one appears to have been left with noticeable after-results. 2 were admitted to the Infirmary, 4 to Stoney Royd Fever Hospital, and the remainder were treated at home.

## The Fever Hospital, Stoney Royd.

The hospital admits cases not only from the Borough, but also from the areas of some of the neighbouring authorities. The following Table shows the cases admitted during the year:—

DISEASE	Halifax	Stainland U.D.C.	Greetland U.D.C.	Elland U.U.C	Sowerby Bridge U.D.C.	Total
Enteric Fever	7	1	1	-	1	10
Scarlet Fever	88	2	7	3	-	100
Diphtheria	32	1	-	1	-	34
Other Diseases (including observ- ation cases)	5	1		_	_	6
TOTALS	132	5	8	4	1	150

The hospital was not very busy during the greater part of the year, though the admission of Encephalitis Lethargica and Enteric cases, in addition to Scarlet Fever and Diphtheria sometimes called for ingenuity in allotting the wards according to disease and sex.

I must again place on record my opinion that the wards used for Scarlet Fever patients are not good wards; originally erected as temporary structures, they have remained permanent. In the interests of the patients they should be replaced by larger and more airy buildings.

## Luddenden Joint Hospital Board.

It is to be regretted that the prolonged negotiations which have taken place between the Corporation and the above Board have not reached a satisfactory conclusion. This matter was dealt with fully in the last Annual Report.

#### Disinfection.

The steam disinfector is situated at the Borough Fever Hospital, Stoney Royd, and 8,314 articles of bedding, clothing, etc., were disinfected during the year. Also 99 library and other books were disinfected in a special apparatus which is provided for that purpose. 323 rooms in private houses were disinfected.

## Tuberculosis.

TUBERCULOS	TUBERCULOSIS DEATH-RATE.											
PERIOD	Respiratory only	All Forms										
10 years average 1914-23	. '98	1.2										
1923	. '79	1.02										

The following Table shows the ages of the cases at the time of notification and at death:-

				TUE	BERG	CUL	osis	;	
The state of the s	*1	NEW	CASE	s	DEATHS				
AGE PERIOD		Pulm	onary	Pulm	on- ionary	Pulm	onary	Non- Pulmonary	
		M	F	M	F	M	F	M	F
Under 1 year  1 to 5 years  5 to 10 ,,  10 to 15 ,,  15 to 20 ,,  20 to 25 ,,  25 to 35 ,,  35 to 45 ,,  45 to 55 ,,  55 to 65 ,,  65 and upwards			- - 1 5 11 14 9 1 -	1 1 2 2 5 2 1 1 —	2 3 3 3 4 3 2 —		1 2 4 9 7 —	1 1 2 - 2 1 - 1 -	- 1 - 2 3 1 3 1 - 1
TOTALS		34	41	16	21	26	24	8	12

<sup>\*</sup>Includes primary notifications, and cases not notified during life, but first intimated by death returns.

Dr. Taylor, the Tuberculosis Officer, who is also Resident Medical Superintendent at the Sanatorium, has furnished the following Report on the work done at the Dispensary and Sanatorium:—

Tuberculosis Dispensary:	
Notifications received from the Health Departme	nt :-
M. F. 45 46 Total 91 (includes 21 under 16)	
Of this number, 3 died before notification was 18 died within 3 months of notification. 7 others died within 12 months of notification.	
	'86
Repeat visits by the Nurses	2,164
	1.45
Cases attending the Dispensary	250
Attendances at the Dispensary	1,554
Disposal of Cases :	
54 were sent to a Sanatorium.	
5 were admitted to the Open-air School.	
6 ,, Bermerside Home.	
13 ,, St. Luke's Hospital.	
9 ,, ,, Royal Halifax Infirm 15 were treated by Tuberculin at Dispensary.	No. of Contract of
Discharged Soldiers:— 71 attended the Dispensary; total attendances 76 Reports were furnished under 22A Memo	
Of the new cases examined at Dispensary:-	
75% were sent by Doctors.	2 2
14.5% were contacts.	
6% were transfers from other towns.	
2.5% were from Maternity and Child Welfard 2% were from the regional D.C.M.S.	e Centre.
Specimens examined at Dispensary Laboratory:- Positive Negative	
	384
Sputa 91 293 Urines — 11	30.4
Others (pus, fluids, etc.) —	8
Others (pus, naids, etc.)	
The second of th	403

#### Shelf Sanatorium.

Admissions and Discharges during the year :-

	Halifax cases	Other Cases	Total
Remaining in on December 31st, 1923	16	14	30
Admitted during the year	*54	- 37	91
	70	51	121
Discharged during the year	46	41	87
Remaining in on December 31st, 1924	24	10	34

<sup>\*</sup>Includes 6 discharged soldiers: but in 2 of these the disease was not allowed by the Ministry as connected with war service

The condition of the patients discharged was as follows:
Improved. No Change. Worse. Dead. Total.
47 19 13 8 87

All the deaths were pulmonary cases; seven being Halifax residents, and one from an outside area.

Excluding one patient who only stayed a few days, the average length of stay was 124 days as compared with 117 days in 1923 and with 96 days in 1922.

Grouping of cases admitted during the year:-

A. Non-Pulmonary:—5 cases (2 Glands, 1 Spine, 1 Intestine, 1 Bone).

B. Pulmonary:-

Group 1. For observation—Several cases were admitted for preliminary observation, but in only one man was the final diagnosis not Tuberculous.

Male. Female. Total.

Group 2. Early cases ... 5 11 16

Group 3. Intermediate cases... 20 21 41

Group 4. Advanced cases ... 12 16 28

The proportion of advanced cases was higher in 1924 than in the preceding year.

The operation of Artificial Pneumothorax was performed in 7 cases with over 100 refills. This operation requires careful and repeated control by X Ray screening and plate.

#### Tuberculosis After-care Committee.

It is again a pleasure to commend the work of the Tuberculosis After-Care Committee of the Council of Social Welfare. The Secretary, Mr. H. L. Genner, and the voluntary workers have continued their labours on the lines described in previous reports, providing a valuable adjunct to the work of the Dispensary.

Convalescent treatment for contacts ... 2

Other assistance in beds, bedding, clothing, etc. ... 4

Special nourishment provided by the Committee ... 6

The Annual Report of the Council of Social Welfare contains further information, including examples which illustrate the functions of the Committee in solving some of the practical problems which are met with in the home life of consumptives.

## Maternity and Child Welfare.

Dr. Alice Latchmore is the Medical Officer for Maternity and Child Welfare and also undertakes the supervision of midwives. The following particulars refer to the work of this Department:—

#### Midwives.

Number practising in the Borough of Halifax during the year (This includes Midwives working in Institutions).	31
Number holding the Central Midwives Board Certifi- cate (by examination)	26
Number of bona fide Midwives (i.e., holding the Certificate of the Central Midwives Board by virtue of having been in practice before 1902)	5
Number of cases in which Medical Aid was summoned by Midwives 12	
20 medical aid notices were sent on behalf of the chil	d

29 medical aid notices were sent on behalf of the child, 16 for inflammation of eyes—13 for feebleness, etc.

#### Certified Midwives and Uncertified Women.

An effort has been made during the year to investigate cases where an uncertified woman has been in attendance, and to find out whether a doctor was actually sent for in time to deliver the mother or not, in accordance with the law. In cases where the handy woman has been communicated with, concerning some omission in this respect, the old difficulty of different versions of the same story has cropped up, and it sometimes seems impossible to discover the truth. Definite progress is being made in this direction however, and the general practitioners are more alive to the risks they run, in being associated with uncertified women.

It may be more than a coincidence in this connection that no maternal death has been certified as due to puerperal sepsis during 1924, whereas there were three deaths due to sepsis in the puerperium during 1923.

A distinction between a certified trained Midwife, and an untrained woman, which is discernible by the public, has long been called for, and of late, Midwives have been suggesting that a badge might be conferred by the Central Midwives Board, at the same time as the certificate is granted, and this would seem a possible solution of the difficulty, as Doctors could tell their patients to employ only those Midwives who had the C.M.B. badge.

## NOTIFICATION OF BIRTHS ACT, 1907:-

The obligation to notify births under this Act is carefully observed by midwives, but appears to be disregarded to a considerable extent by the Medical Practitioners in Halifax.

The Act was brought into force in Halifax in 1908, and in 1909, 92% of the births were notified; in 1914, 93% were notified, but in 1924 only 88.6% were notified, failure to notify occurring almost entirely in cases attended by doctors, many of whom do not realise their obligation to notify the cases themselves or to see that someone else does so.

Number of births notified  Number of births registered	including births transferable to other districts.		1,341 1,512
Ratio of notified to registered			88.6%
Number of stillbirths			41
Number of notified births attended	ed by	Doctors	
with and without Midwives			388

Number of notified births attend	ded by Midwives	606
only Number of notified births attend	led in St. Luke's	686
Maternity Home and Hosp		205
Number of notified births at		62
institutions Notifications from Midwives		02
Medical help		122
Notifications from Midwives resort to artificial feeding		12
BREAST FI	EEDING	
During 1924 of the notific preast fed at first visit, 80 particially fed.		
Breast fed for 6 month Weaned under one mo Partly breast fed for 6	onth 14%	
HEALTH VISITING SUMMARY :-		
Primary Visits Visits, 1-5 years Repeat visits under Ante-natal visits	1,322 2,564 1 year 5,790 118	
CLINICS—Infant Welfare :-		
Wade Street- Number of sessi	rning & afternoon s g session.	sessions.
Queen's Road—Number of Sess Tuesday; Morn New cases, 277. Re-visits, 3,099	ning and Afternoon s	sessions.
Range Bank— Number of session Monday; Aftern New cases, 98. Re-visits, 1,088	ioon session.	
Γotal new cases, 749.  Fotal re-visits to clinics, 7,873.		
Ante and Post-natal Clinics :-		
Wade Street— Number of Sessi Thursday; Afte New cases, 89. Total attendance	rnoon session.	

There were 41 fewer births than in the previous year, and the attendances of new cases at the Infant Welfare Centres were 55 less than in 1923, but the number of subsequent attendances increased by 636.

The Mothers' attendances at the Ante and Post-natal Clinic were practically the same as in 1923, although there were 41 fewer births in Halifax Borough. The average attendance has improved noticeably since the Health Week in October.

These figures indicate that practically half the number of babies born in Halifax attended the clinics.

In addition to work for the Maternity and Child Welfare Committee, the Health Visitors have done all primary visits to notified cases of Tuberculosis, and all re-visits to such cases where there are children under 5 years in the house.

Primary visits number 86.

### STAFF CHANGES.

Although an additional Health Visitor was added to the staff on January 1st, 1924, the actual working strength of the staff was only increased during  $4\frac{1}{2}$  months of the year, as one Health Visitor was off duty through sickness for nearly  $3\frac{1}{2}$  months, and the place of Miss Overy who resigned in 1923, was not filled until May 1st, 1924.

## Maternity Home Accommodation.

Maternity Home accommodation exists at St. Luke's Hospital (separate from the Hospital buildings) and at the Royal Halifax Infirmary. Pending the opening of the new maternity ward at the Infirmary, confinements were conducted in wards set apart for the purpose for the time being. The Corporation has an arrangement by which patients are assisted to enter these homes, the Corporation paying the Institutions the cost of maintenance, and collecting from the patients such portion of the charges as they can afford to pay. For this purpose a scale recommended by the Ministry was adopted (Council Minutes 1924, page 310), so that the amount to be refunded by the patient is graduated according to the family income. Up to the end of the year 1 woman had entered the Infirmary and 2 St. Luke's, under the Corporation scheme.

#### Ante-Natal Work.

The conditions leading to high maternal mortality are probably to some extent the same as those which lead to high mortality in new-born infants, and to still-births. It has not been possible to say exactly what those conditions are, but I have previously suggested that if all pregnant women were kept under careful medical supervision throughout pregnancy, it might be possible to detect departures from the normal and by providing suitable treatment in hospital or otherwise to guard against tragedy. With this in view every effort has been made to encourage women to attend the ante-natal clinic in Wade Street on Thursday afternoons, and to encourage midwives to send their prospective patients for supervision. The attendances have not increased but they have remained about the same as the previous year, though the number of births was 41 less. In addition, ante-natal supervision is arranged in connection with St. Luke's Maternity Home and the Infirmary. It may be only a coincidence that the maternal mortality fell from 10 to 6.

#### Still Births.

Through the kindness of the Cemetery Superintendents, I am able to report that 66 still-born children were buried in the various cemeteries (though only 41 were notified in accordance with the Act). This is a decrease from the previous year.

## Voluntary Workers.

Mrs. Donohoe. Miss Smithson. Miss Kerr.

Thanks are due to the ladies who week by week give their services to the town in the clinics. The association of voluntary effort with Corporation activities is all to the good. It must not be forgotten that the infant welfare work in Halifax was originated by a voluntary association of which many of the present helpers were members, and was only taken over by the Council when already established.

The following list gives the names of the ladies who take part in the work of the clinics:-

REGULAR HELPERS. OCCASIONAL HELPERS. Mrs. Frank Whitley Mrs. Drury. Mrs. Robert Whitaker. Mrs. Harris. Mrs. Joseph Smithson. Miss Magson. Miss P. Bentley. Miss Spencer. Miss Rouse. Miss North. Miss Cone. Miss Oakes. Mrs. R. Stirk. Mrs. Walker Clark. Mrs. Whitaker.

#### Child Welfare Exhibition.

This is referred to on page 54.

## Venereal Diseases.

In conjunction with the County Authority, a joint clinic for the treatment of venereal diseases is held at the Royal Halifax Infirmary.

The clinic is open for women and children every Tuesday afternoon from 3-30 to 5-30, and from 6 to 8. For men, every Thursday between 6 and 8 p.m. Also an auxiliary treatment centre for men is open daily from 10 a.m. to 12 noon, and 6 to 8 p.m., and on Sundays from 10 a.m. to 12 noon. It appears that these arrangements are sufficient and adequate for the needs of the Borough.

There is a Medical Officer with an Assistant Medical Officer in charge of this clinic.

The following figures re the Treatment Centre:—  Number of persons dealt wit tion with the out-patient of first time during the year, be suffering from:—	h in containic, for	nec-	atients at Local Clinic	tending Other Clinics
Syphilis	The latest of th		48	I
Soft Chancre	AR THE PARTY		I	_
Gonorrhoea			113	I
Conditions other than	Venereal		115	I
				-
Total			277	3
Total attendances at the out- Aggregate number of in-pa Number of doses of Salvarsa	tient day	s .	8,553	107
given			329	8
Specimens sent to an approved Laboratory for :-				
Detection of Spirochae			3	_
Detection of Gonococ		****	-	-
Detection of other org	ganisms			_
Wassermann Reaction			179	
Total	·		182	_

923 examinations for detection of Gonococci were carried out at the Treatment Centre.

There are 5 medical practitioners, not including the two officers of the clinic, in the Borough, qualified to receive free supplies of Salvarsan substitutes.

There were 70 specimens sent to the pathological laboratory provided by the Council, by the general practitioners during the year.

## Mental Deficiency.

The Committee for the Care of the Mentally Defective has carried on its work on the lines described in previous reports. There is nothing new or of outstanding importance to report. Some difficulty exists in finding institutional accommodation for some of the younger female defectives. No such difficulty exists with males, who are sent to the fine institution at Whixley, of which the Corporation is in joint townership.

The following Table shows the cases under the care of the Committee on December 31st, 1924:—

	3.77	7-7		
I.	Under "Order"  (a) In Institutions  (b) Under Guardianship	M. 20 Nil	13	Total 33 Nil
2.	In Institutions or under Guardian- ship dealt with under Sec. 3— in regard to whom the Local Authority contributes under its permissive powers	Nil	Nil	Nil
3.	In "places of safety"	Nil	Nil	Nil
4.	Under Statutory Supervision	32	20	52
5.	"Subject to be dealt with," but action not yet taken:—  (a) Notified by Local Education Authority, Sec. 2 (1), (b) (v)  (b) Otherwise "ascertained"	Nil Nil	Nil Nil	
6.	Under consideration, as to whom it had not been decided whether they are "subject to be dealt with" or not:—  (a) Ascertained to be defective	Nil	Nil	Nil
	(b) Not ascertained to be defective		Nil	Nil

## Bacteriological Examinations.

The improved arrangements for bacteriological examinations outlined in the last Annual Report, have worked satisfactorily and have been appreciated by many of the local doctors

The arrangements are as follows:-

### Diphtheria.

Swabbing outfits may be obtained from the Health Department, and after use may be posted direct to the Pathological Department, Medical School, University of Leeds. Positive results are telephoned or telegraphed direct to the practitioner, but negative results are communicated by post only.

#### Enteric Fever.

Blood outfits for the agglutination test are supplied by the Health Department, and may be sent direct to the above address at Leeds.

#### Tuberculosis.

Sputum and other material is examined, as in the past, at the Tuberculosis Dispensary, 8, Clare Road, Halifax.

#### Examinations 1922.

The following Table shows the number of examinations carried out either at the University of Leeds or at the Tuberculosis Dispensary during the year, either for the medical practitioners of the town, for the fever hospital, the clinics, or the Health Department:—

Sputum for Tubercle			395
Urines for Tubercle			11
Diphtheria Swabs	***	***	158
Faeces for Typhoid			5
Agglutination Test (Widal)	T.A.B.		10
Others (Pus, Fluids, etc.)			8
	T . 1		-
	Total		587

In addition to the above, samples of milk from cows suspected to be suffering from tuberculosis of the udder have been taken by the Veterinary Inspector and submitted to bacteriological tests in other laboratories. Of 44 samples examined, none proved to contain tubercle bacilli.

#### Issue of Sera and Vaccines.

### Diphtheria Antitoxin:

As the Health Department is usually prepared to remove diphtheria cases to hospital on the shortest notice, the issue of diphtheria antitoxin for use in the town should be rarely required; a supply is kept at the Health Department for issue in certain circumstances.

### **Antitetanus Serum:**

The Health Department holds a small supply for distribution as required.

#### **Botulism Antitoxin:**

The Ministry of Health has placed botulism antitoxin at certain centres about the country. The nearest to Halifax are Manchester and Leeds. The Medical Officers of Health of these places are in charge of the supplies.

## Sanitary Administration.

List of Adoptive Acts, etc., Relating to Public Health in force in the District.

Public Health Acts Amendment Act, 1890. Infectious Diseases (Prevention) Act, 1890.

A Local Act, 4 Geo. IV., cap XC.

Halifax Improvement Act, 1853. Halifax Water and Gas Extension Act, 1876.

Halifax Corporation Acts, 1882, 1900, 1902, 1905, 1911. Provisional Orders—Halifax Orders, 1851, 1881 and 1924.

## Water Supply.

There are no new particulars of public health interest to report.

A matter which might well occupy the attention of the Council is the desirability of extending the public water supply in the rural portions of the town, particularly in the Bradshaw area. The supplies obtained from some of the springs are of uncertain origin and have been found on analysis to be impure. The extension of the water mains in such areas might involve the Water Department in expenditure not easily recoverable, but the advantages conferred upon the inhabitants would be great.

## Rivers and Streams.

There is nothing new to report.

### **Drainage** and Sewerage.

The Borough Engineer has kindly supplied the following information regarding new sewers:—

290 yds. New 9in. sewer in New Street, Gibbet Street.
750 yds. Court Lane sewer from Gibbet Street to Highroad Well Lane.

490 yds. New 12in. sewer—Wheatley Road improvement.
76 yds. New 6in. sewer connecting to Burnley Road from Granny Hill.

#### Closet Accommodation.

Satisfactory progress has been made towards the abolition of the pail closets of the town. When the year commenced the Corporation was awaiting the decision of Parliament on the application which had been made during the previous year for a Provisional Order to vary the Halifax Local Acts, so as to enable the Corporation to compel owners of pail closets to convert them to water-closets, the owners paying half the cost and the Corporation the other half. The application was granted, the date of the Provisional Order being July 14th, 1924. There are over sixteen thousand pail closets in the town for which water supplies and sewers are available, and it is hoped that these will all be converted to the water-carriage system within eight years, the work having been mapped out in areas which will be dealt with systematically.

The necessary preliminary discussions having taken place, work on the scheme was actually commenced late in the year. The first area to be dealt with was one on the East side of Huddersfield Road, lying between that road and the railway and bounded on the North by Spring Hall Lane. It was arranged that the preliminary enquiries in the district should be made by the Sanitary Inspector of the area, who collected all the information necessary so that the formal notices could be served by the Town Clerk upon the owners. This information having been forwarded to the Town Clerk, the latter and the Borough Engineer then carried out their respective duties. Although up to the end of the year only 18 compulsory conversions had actually been completed the work was in a much more advanced state than this number would indicate, a large number of conversions being in process of negotiation or in the hands of the workmen. The majority of the conversions were undertaken by the owners through their own contractors. The first area entered proved simple to deal with but as the Salterhebble district was reached difficulties cropped up, necessitating many interviews and consultations. Up to the present, however, the work has proceeded with

far less difficulty than was expected, and smooth working has been facilitated by a spirit of co-operation between the various Corporation Departments involved.

Throughout the year the policy of encouraging owners to carry out conversions voluntarily in all parts of the town was continued, the Corporation paying half cost of such conversions (up to a certain limit). This has proved very satisfactory, no less than 509 applications having been received in the twelve months; 256 of these voluntary conversions were completed by the end of December. Applications regarding conversions undertaken voluntarily should be made to the Borough Engineer before the work is commenced.

The number of closets in the Borough as on December 31st, 1923, is recorded as follows:—

Privy Middens (mostly in rural areas)	356
Water Closets	9,584
Pail Closets, where water supply and sewers are available for conversion	16,403
Pail Closets, in rural areas without water supply and sewers, approximately	2,000
	28,343

# Scavenging and Refuse Disposal.

The Medical Officer of Health is not responsible for this work, which is carried out under the direction of Mr. Sagar, the Cleansing Superintendent.

Mr. Sagar states that the old wooden ashtubs are being steadily replaced by sanitary metal dustbins.

The new salvage plant for dealing with house refuse was not in operation during 1924, engineering difficulties having been encountered, but at the time of preparing this report Mr. Sagar is able to say that the plant is working satisfactorily, all house and shop refuse being treated on the most modern lines. Everything that has any value, such as cinder, dust, etc., is being recovered from the refuse, and organic material is made use of for the production of gas with which the boiler is heated in order to provide steam to drive the plant. From a sanitary point of view the new system is welcome, as it means the end of the old system of tipping, with its attendant nuisances. If the new plant fulfils its early promise Mr. Sagar will deserve the congratulations of the ratepayers.

# Factory and Workshops Acts.

The District Sanitary Inspectors carry out the inspection of factories and workshops.

The following Table shows the number of workshops on the Register.

District A	. Mr.	Walshaw			220
District B	. Mr.	Clinch		-	271
District C	. Mr.	Wilson	·		132
District D	Mr.	Teal			41

The total number of visits paid by the Inspectors to factories and workshops during 1924 was 694.

The duties carried out relate to the screening, lighting, ventilation, sufficiency and condition of sanitary conveniences, and the ventilation, cleanliness, limewashing and sanitary condition of workshops generally.

The number of individual defects dealt with during the year, including those reported to the Health Department by H.M. Inspector of Factories, is shown in the following Table:—

The state of the s	mun	Dist	RICTS	S
	A	В	С	D
Defects outstanding Dec. 31st, 1923	-	2	1	1
Defects discovered during the year	11	20	17	5
Totals	11	22	18	6
Defects remedied	11	20	18	6
Outstanding Dec. 31st, 1924	-	2	-	_

#### Bakehouses.

Included in the above figures are the items relating to bakehouses. Constant supervision of these premises is maintained. During the year the Inspectors paid 363 visits to bakehouses, or premises proposed to be used as bakehouses, and the following summary indicates the defects dealt with:—

Nature of Defects.	477	Number Reported	Number Remedied.
Dirty Conditions, floors, tables, etc. Limewashing overdue Defective Roof and Troughing Made up Drains Offensive Accumulation		4 18 1 2 1	4 18 1 2 1
Illegal occupation of underground Bakehouse Insufficient Closet accommodation Totals		1 1 28	1 1 28

#### Ice Cream Makers and Vendors.

123 visits were paid by the inspectors to these premises, which were found in good order. Neglect of limewashing was found in one case, but this was remedied. With regard to itinerant vendors, the licensing authority, acting in cooperation with the Health Authority, make the issue of a license contingent upon the receipt of a favourable report as to the suitability of the vendor's premises for making and storing the commodity.

#### Nuisances and Defects.

A table showing the work of the Sanitary Inspectors does not make interesting reading; it certainly conveys little idea of the value of the work to the community or of the technical knowledge, skill and tact which have to be brought to bear upon it. The Sanitary Inspectors have worked well in securing the necessary repairs to property, and on the whole the state of property in Halifax compares favourably with that of many industrial towns. The initiation of the scheme for compulsory conversion of pail closets to the water-carriage system has entailed extra work for the staff, and this has been cheerfully undertaken.

The following Table shows the nature of the nuisances which were dealt with by the Inspectors during the year:—

Nature of Nuisance			Number Reported
Defective Sinks Drains			85
" Sink Pipes		141	18
" Syphon Traps		***	5
" Basement Drains		***	9
" Yard Drains	***	4	20
" Urinal Drains			
" Water Closets, Drains, and S	Soil Pipes		23 .
" Area Drains		***	***
", Sink Drains		***	90
Made-up Sink Pipes and Drains		***	20
" Bath and Lavatory Waste P	ipes	***	***
" Basement Drains	-""	***	
" Water Closets		***	2
", Yard Drains Urinal Drains		***	19
" Gullies		***	· · ·
Daimete Church Davins		***	8
		***	
" Intercepting Traps Untrapped Basement Drains	***	***	11
	ine	***	7
" Sink Waste Pipes and Dra " Area Drains		***	
Wand During	***	***	15
Drains not efficiently trapped:	The Party of the	***	10
Sink Drains			2
Sink Drains and Pipes requiring Discor	nnecting	100	21
Defective Fallpipe Drains	incering		20
" Fallpipes	THE REAL PROPERTY.	- 10	30
Snouting	***		49
", Roofing	The same of	***	43
Broken Pot and Iron Traps		1000	10
Insufficient supply of water to Closet			
Nuisances from Water in Cellar			12
" Want of Drains			13
" Swine			
" Animals		***	9
Houses Övercrowded			7
" requiring Limewashing	***	****	5
Accumulations of Offensive Matter			20
Privies requiring Limewashing		-	7
Want of Water Supply			9
Insufficient Privy Accommodation			3
Offensive Ashpits and Privies			87
" Goux Closets			1
,, Ashes tubs	***		7
Doors off Closets and Ashes tub Plac	es		25
Polluted Drinking Water	***		1
Dilapidated Closets and Ashes tub Pl	aces	***	53
Ashpits requiring reconstruction	***		***
Goux, etc. Closets to convert to Water	r Closets		4
Privies to convert to Goux Closets	***		20
Offensive Street Gullies			13
Damp House Walls		***	9
Insufficient Ventilation		***	4
Structural Defects		***	181
Miscellaneous			160

Service of Statutory Notices.

The number of occasions on which it was necessary to resort to statutory notices is as follows:—

Under the	Public Health	Acts	(includ	ling smo	ke a	ibate-	
	ment)						28
"	Housing Acts						16
,,	Local Acts						9
				-			
				Total			53

and the procedure resulted in abatement in 79 instances, which includes cases outstanding from previous year.

# Furnished Rooms and Houses Let in Lodgings.

There are now 191 on the register. To these, 242 visits were paid by the Inspectors. No insanitary conditions were reported

Proceedings against an owner in 1922, which resulted in a substantial penalty, and a continuing daily penalty until satisfactory completion of repairs, proved to have a valuable effect upon the owners of similar premises, and this is probably the reason why no defects were found last year.

# Common Lodging Houses.

There are 10 Common Lodging Houses registered in the Borough, and they accommodate 602 lodgers. They are under the supervision of the police, but the sanitary inspectors also pay visits to them and supervise such sanitary matters as periodical whitewashing.

# The Work of the Veterinary Inspector.

Mr. J. Pollard, M.R.C.V.S., D.V.S.M., Veterinary Inspector, is engaged in the following duties:—

Work under the Contagious Diseases of Animals Acts (in conjunction with the police).

Veterinary Surgeon's duties for the Transport Department, and assistance in the purchase of horses for Corporation Departments.

Work under the Dairies, Cowsheds, and Milkshops Order, and the Milk and Dairies (Amendment) Act, 1922.

The supervision of slaughterhouses.

The inspection of meat and other foods.

The supervision of offensive trades.

These duties are so extensive that they cannot be entirely undertaken by Mr. Pollard alone, and a certain amount of help is rendered by the Sanitary Inspectors, who cooperate whenever it is necessary.

Mr. Pollard reports as follows on that portion of his work which concerns the Health Department:—

# Dairies, Cowsheds and Milkshops.

The following table shows the number of milkshops, other retailers and producers on the register at the end of the year:—

Milkshops			25
Other Retailers			151
Retailers from outside the	Boro	ugh	43
Wholesale Producers			0 =
Total			314

Foot and Mouth Disease, which continued from the end of 1923 until Easter 1924, prevented the usual inspection of premises and examination of cattle. This makes the third year in which the inspection of cattle has been interrupted or suspended during the months when the cattle are housed: months of great importance to the inspecting official, as in a large number of cases it is only by regular visits and exhortations that anything like a standard of cleanliness can be maintained.

Another cause of impediment is Contagious Abortion, which is becoming more prevalent. An official does not wish to be the conveyor of disease knowingly, consequently has often to break off examinations at the inconvenience of the service.

In spite of fresh legislation it was most discouraging to have to note at the end of the year how careless some cowkeepers had become. While not advocating any arbitrary action, and paying due regard to the mental calibre of the person one has to deal with, I consider there is a limit to the use of persuasion, as the repetition without "The Iron Hand in the Velvet Glove" to support and enforce, is considered weakness, with the result—no permanent improvement—they continue in their old way. If some of these offenders were punished it would have a salutary effect, and would meet with the approval of those who are endeavouring to carry on their business in a satisfactory manner.

During the Health Week, Mr. Wilfred Buckley gave a lantern lecture on "The Production of Clean Milk" and was rewarded by a good attendance of dairy farmers. This lecture stimulated an interest in the subject and the lecturer was bombarded with questions at the close of the meeting by the dairymen present. It was considered by those who attended the lecture that the slides shown depicted equipment on too large a scale, and inapplicable to the small dairies in the district, so it was decided to arrange another meeting to depict models suitable for local requirements.

As in other spheres of propaganda, work by means of the platform and the press is necessary to educate people to the advantages of clean milk. I have particularly in mind Grade A' (tuberculin tested) milk. What a boon it would be to housewives to have milk delivered to them that would keep sweet at 60° Fahrenheit—the temperature of a warm room—for 24 hours. Yet samples of milk in clean milk competitions have been proved to keep sweet for four days, and even longer, at that temperature.

I regret being unable to report any producer, or any application for the production of milk under the Special Designations Order, but I trust that in the next Annual Report some progress will be recorded.

During the year 44 samples of milk were taken for bacteriological examination, of these, 36 were from supplies outside the Borough. Eight were special samples taken within the Borough.

Considering the large number of cows the bulk samples must represent it is extraordinary that none were reported as containing tubercle bacilli. Experience has taught us to anticipate tubercular udders, particularly at a certain time of the year, and if other work prevents samples being taken at that period, the prospects of finding tuberculous samples are diminished accordingly.

No case of tuberculosis of the udder was detected within the Borough during the past year, but four cases of clinical tuberculosis were found. These four cattle were sent to the knackers.

Two cowsheds were reconstructed during the past year, and one dairy was built.

# Slaughterhouses.

The much-needed reconstruction of the Municipal Abattoir, which is to take place on the present site, is eagerly awaited.

There are again 5 private slaughterhouses in the Borough, classified as follows:—

Registered ... ... 5 Licensed ... ... 5

The approximate number of animals slaughtered therein during the year is as follows:—

Cattle. Calves. Sheep and Lambs. Pigs. 150

The following Table shows the number of visits paid by the Meat Inspector to the slaughterhouses, butchers' shops, markets, &c.:—

Description of I	Number of Visits		
Public Slaughterhouse		 	800
Private Slaughterhous	es	 	82
Borough Market		 	277
Wholesale Market		 	270
Fasting Sheds		 	190
Potted Meat Houses		 	83
Tripe Boiling Houses		 	41
Butchers' Shops		 	2032
Cowsheds		 	380
Other Visits		 	102
	Total	 	4,257

The following Table shows the number of animals slaughtered during the year, the number condemned, and the total weight of the same:—

	Cattle.	Calves.	Sheep and Lambs.	Pigs.	Offals.	Total.
Number of Animals ) killed	8561	2070	20969	6922	lbs.	38522
Do. condemned	29	4	15	61		109
Number Condemned on account of Tuberculosis	25	100	1	29	5195	55
Weight of those condemned in lbs	15070	185	735	3290	7144	26424

The following Table shows the total weight of meat and offals destroyed on account of tuberculosis, and from other causes:—

Total Amount of Meat Destroyed	lbs. 19280
Total Amount of Offals Destroyed	7144
Total Amount of Meat Destroyed on account of Tuberculosis	15155
Total Amount of Offals Destroyed on account of Tuberculosis	5195
Total Amount of Meat Destroyed from other causes	4125
Total Amount of Offals Destroyed from other causes	1949
Total Meat and Offals Destroyed	26424

Kinds of Food Destroyed				Quantity in lbs.
29 Carcases of Beef				15070
Beef not in Carcase .				1578
1 C				185
14 Carcases of Mutton and				735
Mutton other than Carcase	s			
61 Carcases of Pork .				3290
Pork not in Carcase .				1716
267 Rabbits				480
Fish				2721
Emit and Vagetables				160
Conned Provisions				610
Offal				7144
THE PART OF THE PARTY OF THE PA	Total	Weight	A F. Al	33689

All the above was voluntarily surrendered by the owners. In no case was it necessary to obtain a Justices' Order.

#### Offensive Trades.

The number of offensive trades carried on in the town was as follows:-

Bone	Boiler and	Kna	cker's	Yard	 I
Bone	Boilers				 2
Soap	Boilers			***	 2
Tripe	Boilers		***		 10
					-
					15

Speaking generally, these trades were carried on in a satisfactory manner during the year.

#### Smoke Abatement.

Mr. H. G. Clinch reports as follows:—
I respectfully submit my report on the efforts of the Department to improve the "Sanitation of the Air."

Perhaps the most outstanding feature of the year 1924 has been the marked change in the attitude of both manufacturers and the general public towards the ideal of a "Clean Sky," and it is very gratifying to know that smoke emission is in Halifax becoming to be regarded as a moral crime. Large tracts of our once beautiful country are now dull and depressing areas, almost entirely lacking in natural beauty, whilst the unfortunate population live under a sky wearing an aspect of perpetual gloom, yet the smoke which is responsible for this unpleasant accompaniment of industry is to a large extent preventable.

In the midst of a universal clamour for reduced costs of production, we work our steam boilers at an efficiency of about 55 per cent. We load our air with vapours and soot, depriving us of much of our health and energygiving sunlight, destroying vegetation, and imparting to all our buildings a funereal coating of black grime. In addition to this, we increase the cost of living by waste at the vital point where every penny of cost becomes subject to endless multiplication. Whatever we use throughout the day, coal will be found to enter somewhere into the cost, and a moment's thought will suffice to convince one of the fact that the direct and indirect effects of constant waste of fuel, are a very serious factor in the economic life of the people. Economists are now beginning to realise that unless we make better use of our fuel resources, we shall gradually be driven out of business as an industrial nation.

# Factory Smoke.

Smoke production in the boiler furnace is usually accompanied by inefficiency and waste. Why then, is it produced? A careful examination of the matter reveals the fact that the boiler plant of a factory is not accorded its proper status.

In the general desire to extract every ounce of power from generated steam, every attention is given to the engine and turbine and their accessories, yet, the all important question of the nett cost of the production of steam, is neglected. So we find a beautiful engine, the product of all that modern science can give us, tenderly cared for and housed in a beautiful building, and within a few yards, an obsolete boiler plant in a disgraceful state of inefficiency, a greedy consumer of thousands of pounds a year in the form of coal, much of which could be saved by the adoption of efficient methods.

With the exception of the larger combines, manufacturers have not yet the proper attitude towards their steam raising plants. They are slow to realise that their polished and glittering engine can run at a certain efficiency and no more, and that this factor is principally determined by the makers before it is delivered to the works, whereas the boiler plant will run at any efficiency from 40 to 80 per cent., and this will be determined almost entirely by the skill and knowledge of the man in charge. Far more skill and science is needed to extract the maximum efficiency from the boilers than from the engine, yet the boiler attendant is classed and paid as unskilled.

The fact that some of the larger combinations are now employing competent combustion engineers in order to raise the efficiencies of their steam raising plants, and that their chimneys are being cleaned up in the process, is illuminating and definitely proves smoke prevention to be a good commercial proposition. The boiler itself is, in design, far from satisfactory, it being obviously wrong to attempt the combustion of raw coal in what is in effect, a water-cooled chamber.

#### Procedure.

I have continued the procedure inaugurated in 1922, of assisting the owners of an offending chimney by advice as to the cause of smoke production, and every effort is made by friendly means to induce them to apply the remedy.

An example of the change of attitude is found in the fact that I am now frequently asked to inspect boiler plants. It is also interesting to note that despite the former

somewhat violent criticisms of my methods, the Health Departments of various other towns are now making some attempt to copy Halifax.

Sets of my "Hints to Boiler Attendants" in the form of ten 'Don'ts,' printed in large type, and mounted on suitable cards, were distributed by the Health Committee to the steam users in the town for hanging in the various boiler houses. (In response to a demand, these Hints were later reprinted and published for use of local authorities throughout the country.)

As the purpose of a Health Department is constantly to strive for improvement rather than for the preparation of pleasant - reading statistics, periodical observations of chimneys which achieve a good character are very considerably reduced, in order to afford time for concentration on offenders.

During the period under review, 204 observations of an hour's duration have been taken, showing an average emission of black smoke by the particular chimneys observed of 1.1 minutes, but as these include repeated action in cases where as much as ten minutes black smoke per hour was the rule, it will be understood that the actual average smoke emission in Halifax is now well under one minute per hour. Much still remains to be done, however, and the efforts of the Department must be maintained.

#### Smoke from Process Work.

As there is no legal remedy for process smoke, I am unable to attack this aspect of the problem, but it is my contention that even though smoke must of necessity be produced in the course of certain manufactures, it need not, and should not, be discharged to atmosphere with its solids unconsumed.

# Legal Powers.

Existing legal powers, passed fifty years ago, are now hopelessly inadequate, and do not in any way conform to present day knowledge. If smoke were but accompanied by an offensive smell, new and ample legislation would be rushed through Parliament at the instance of a determined electorate, but as it merely deprives us of health and wealth without causing any noticeable offence to the senses, we wait for urgently needed increased powers.

#### The Future of Smoke Abatement.

Future developments are likely to be along the lines of cheap electricity, gas, and smokeless fuel for both industrial and domestic use.

I cannot believe that the proposed scheme of electricity generation at the pit head will solve the problem. When electricity supersedes steam for power purposes, a vast amount of steam will remain to be produced in industry for process work and heating and hot water for domestic use. It is more probable that in the future, large town gas and electricity undertakings will be merged, and produce power and light on the one side, with gas, smokeless fuel, oil, and other commercially valuable products on the other. Every factory could then be driven by electrical power, and warmed by means of either gas or coke fired boilers. The importance of cheap heat as well as of cheap power will be realised when it is considered that the warming of a cotton mill for instance, accounts for as much as 25 per cent. of the total coal consumption at certain seasons. In some industries, the demand is almost entirely for steam for process work.

It is probable that a large proportion of our manufacturing process work could be efficiently carried out in gas fired or electrical furnaces.

In the home, the use of gas and electricity leads to economy by cutting out the cost of fuel cartage from station to coal cellar, and again in the removal and disposal of ashes by the local authorities. The coal fired cooking range is hopelessly inefficient and should be abolished or the use of smokeless fuel therein made compulsory.

Under a clean sky, it would be reasonable to expect improved health, our country side would be transformed, and the effects on trade of reduced costs of production could not be other than beneficial in the extreme.

My sincere thanks are due to my colleagues for their willing assistance, and to Mr. Fisher, Station Superintendent of the Electricity Works, for his splendid example of clean chimneys combined with one of the lowest costs of production in the country.

Such views as I have expressed are included for examination by independent experts, in the hope that they may result in the betterment of the health and well-being of the people.

# Sale of Food and Drugs Acts, etc.

The Inspector under the Sale of Food and Drugs Acts is Mr. J. G. Walshaw, who, under the supervision of your Medical Officer, collects the samples and submits them to the Borough Analyst for examination. The many

technical points involved in Mr. Walshaw's work are only appreciated by those who have had actual experience of the administration of the Acts. Mr. Lea, the Borough Analyst, has kindly prepared a report on the work undertaken:—

# Borough Analyst's Report.

# Sale of Food and Drugs Acts, 1875 to 1907.

"THE SALE OF MILK REGULATIONS, 1901."

"THE PUBLIC HEALTH (MILK AND CREAM)

REGULATIONS, 1912," AND

"THE SALE OF MILK REGULATIONS, 1912."

There were 293 samples taken under the above Acts and Regulations during the year, or 2.94 per thousand head of population. Of this number, 17 were adulterated or unsatisfactory.

The following table gives a list of the commodities examined and the inferences drawn from the results of the examination:—

Article.	Total Samples Analysed	Genuine	Adulterated or Unsatis- factory	% Adulterated
New Milk	 204	191	13	6.37
Skimmed Milk	 1	1		
Sponge Buns	 10	10		
Lard	 5	5		
Margarine	 - 8	7	1	12.20
Potted Meat	 2	2	***	
Butter	 8	7	1	12.20
Cheshire Cheese	 3	3		
Tinned Peas	 1	1		
Jam	 4	4		
Croom	 12	10	2	16'66
Ice Cream	 2	2		
Baking Powder	 9	9		
Vinegar	 6	6		
Carana of Wantan	 8	8		
Rice	 5	5		
White Desert	 5	5		
	293	276	17	5'74

The percentage of adulterated or unsatisfactory samples shows a slight increase compared with the two previous years, but is considerably below the average of the five preceding years. Milk.

204 samples of milk were examined during the year, of these 191 were genuine and 13 unsatisfactory. In the case of seven of the thirteen unsatisfactory samples your Committee did not consider that the deficiencies were sufficiently large to warrant legal proceedings being instituted, but I believe that in all these cases the vendors were warned of the condition of their milk by your Committee.

Five of the six remaining cases were taken into Court, and in each case the Magistrates found that offences had been committed under the above Acts, and inflicted fines, the aggregate amounting to the sum of forty pounds. Three of these samples contained one of the most objectionable preservatives known, namely, Formaldehyde. In the one case not taken into Court it was found that the vendor's cows, at the morning milking, were giving milk below the standard; this unusual occurrence was accounted for by the fact that the cows were in a very unhealthy condition, and were only two in number.

The only other samples which call for comment are two of Cream, one Butter and one Margarine. The latter consisted of pure butter; when the formal sample was taken a few days later margarine was supplied, obviously the selling of the original sample had been an assistant's mistake.

For several years a provision merchant in the town has sold 'Irish Firkin Butter' which has contained more than the legal amount of moisture, namely, sixteen per cent. He had no intention of defrauding the public as the butter was branded "containing 18-20 per cent. of water," but legally he had no right to sell the article as butter. I understand that several letters from your Committee have resulted in a promise on his part not to sell this particular article, a highly satisfactory state of affairs; the object of these Acts and Food Regulations is to protect the health of the public and to ensure that they are protected from fraud, and if such matters can be regulated without legal aid so much the better.

The sample of Cream, which I considered adulterated, contained 0.54 per cent. of Boric Preservative; a formal sample taken a few days later contained the same amount, and the vendor, who had no warranty from the suppliers, was fined £1 and costs at the Borough Police Court on August 26th.

During the year a Committee appointed by the Ministry of Health to enquire into the use of preservatives and colouring matters in food, presented its report. This report should it become operative, and I have no doubt that it will, promises to revolutionise the whole food industry.

The principal deviations from the report of the previous Committee are that they have entirely banned the use of boric and salicylic preservatives and have limited the use of benzoic and sulphurous acids to certain specified commodities. They have also limited the sale of any preparation as a food preservative. This latter recommendation is very important in that it should prevent the sale of so-called 'harmless' preservatives which, under a variety of names are foisted on the public to-day.

The importance of the new regulations can be gauged by the fact that many brands of the following articles contain at the present time a preservative which will be prohibited if the recommendations of the Committee are enforced:—Cream, Butter, Margarine, Sausages, Potted Meats, and Fish, Jams, Liquid Eggs. The Committee have however, advised that manufacturers should be given a period of grace to adjust their methods of manufacture and to allow stocks to be cleared.

That these regulations may be made effective and lead to further enactments for the betterment of the food supplies of this country, and the consequent improvement of the health of the country, is a consummation to be wished, but we must acknowledge that it is by education rather than legislation that we can hope to improve the quality of our food supplies.

# SHOPS INSPECTOR'S ANNUAL REPORT, 1924.

Mr. T. Fearnley, Shops Inspector, presents the following report of his work :-Half-holiday Closing Visits 736 Assistants' Half-holiday Visits 720 Children's Bye-Law 917 Registration & Administrative Visits 755 Special 743 Fabrics (Misdescription) Act " 274 Shops Early Closing 688 Rats and Mice (Destruction) Act Visits 635

Shops wit	thout Assistants Half-holiday Notice (Sec. 1)	55
Do.	Young Persons' ,, (Sec. 2)	24
Do	Mixed Business ,, (Sec. 10)	115
Do.	Half-holiday Closing Notice (Sec. 4)	131
Do.	Seats for Female Assistants (Sec. 3)	1
Contrave	ention of Mealtimes (Sec. 1, Sub. 5)	10
Do.	Assistants Half-holiday (Sec. 1, Sub. 1)	32
Do.	Half-holiday Closing (Sec. 4)	149
Do	Early Closing Act or Orders (Sec. 5)	123
-	(1920 21 Act)	1
Do.	Young Persons' Hours (Sec. 2)	- 2
Do.	Children's Bye-Laws	65
Warning	Notices sent	25

During the year the Grocers of the town have canvassed for an Early and Half-Holiday Closing Order for their trade. They have obtained more than the necessary majority and the matter is now in the hands of the Home Office, who will communicate the date on which the Order becomes operative.

# Rats and Mice (Destruction) Act, 1919.

### NATIONAL RAT WEEK.

November 3rd to 10th inclusive. 1924.

Results of local efforts are detailed below.	
Number of premises that are or have been rat-infested	
during the year	94
Premises temporarily clear after rat week	32
Premises where numbers were reduced	46
Premises at present rat-infested	60
Visits paid to rat-infested premises for rat week	148
Visits paid to rat-infested premises during the year	635
Number of rat tails brought to the Health Department	-
during the year	1,328
Number of rat tails brought to the Health Department	
during Rat Week	IOI
Number of rats killed in addition to the above	309

During the year there has been an increase in the number of rat-infested premises in the centre of the town. Probably this is due to more determined efforts amongst Farmers, Poultry and Pig Keepers, to keep the rodents away from their premises. The latter prefer cats, dogs and traps to the method of destruction by poison.

As a result of the combined efforts at destruction I consider the rat population has been greatly reduced in this area.

# Housing.

Number of new houses erected during the year:	
(a) Total	168
Acts, 1919 or 1923:—  (i) By the Local Authority ,  (ii By other bodies or persons)	86 82
UNFIT DWELLING HOUSES.	
I.—Inspection.	
of dwellinghouses in- spected for housing defects (under Public Health or Housing Acts)	1,027
2. Number of dwellinghouses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	154
3. Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	4
4. Number of dwellinghouses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	918
2.—Remedy of defects without service of formal	,,,
notices.  Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers	837
3.—Action under Statutory Powers.	
A. Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.	
of which notices were served requiring repairs	16
2. Number of dwellinghouses which were rendered fit—	
(a) by owners	13
(b) by Local Authority in default of owners	11

	3. Number of dwellinghouses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	None
В.	Proceedings under Public Health Acts.  1. Number of dwellinghouses in respect of which notices were served requiring defects to be remedied	24
	2. Number of dwellinghouses in which defects were remedied—  (a) by owners	30
	(b) by Local Authority in default of owners	39 6
C.	Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.	
	1. Number of representations made with a view to the making of Closing Orders	4
	2. Number of dwellinghouses in respect of which closing Orders were made	4
	3. Number of dwellinghouses in respect of which Closing Orders were determined, the dwellinghouses having been rendered fit	None
	4. Number of dwellinghouses in respect of which Demolition Orders were made	None
	5. Number of dwellinghouses demolished in pursuance of Demolition Orders	None

# Crossfield Unhealthy Area.

On January 24th, 1924, after some months of preparation, the Medical Officer of Health placed before the Health Committee the "Official Representation" in respect of the Crossfield area, together with particulars and statistics showing the unhealthy character of this block of property. During the year the Committee engaged in careful discussion of the policy to be pursued in regard to the area, with special reference to the re-housing of the inhabitants.

The various officials concerned proceeded with the preparation of schedules and maps for submission to the Ministry in due course.

# Medical Examination of Tramwaymen and Gasworkers.

The Medical Officer of Health or Dr. Taylor carried out the following medical examinations on behalf of the Tramways and Gas Committees, including several consultations with usual medical attendants:—

# Applicants for employment or promotion ... 44 Return to work after sickness (other than cases certified by usual medical attendants) ... 12 Gasworkers—

Propaganda Work.

... Nil

Special examinations ...

The heavy calls made upon the time and energy of the Staff by the routine work of the Department prevent the development of propaganda work to the degree it deserves, but a fair amount of such work is accomplished every year. The instruction of the public in matters of health takes many forms; for instance the work of the Infant Welfare Centres is chiefly the instruction of mothers in the management and fleeding of babies. Then again the Health Visitors constantly endeavour to teach the laws of health in the home. The Department issues leaflets dealing with the care of babies and the prevention of various diseases. During 1924 a revised leaflet on Measles was prepared and issued through the Welfare Centres and through the Schools in which Measles was prevalent (see page 15).

A certain amount of lecturing was undertaken by the Staff, in addition to the lectures given in Health Week. Your Medical Officer of Health lectured to the Halifax Textile Society on "The Health of the Industrial Worker" with a view to directing the thoughts of both masters and men to the means by which mental and bodily efficiency may be maintained in the mill. He also lectured to the Halifax Undertakers' Association, while the lecture of "Our War against Microbes" given during Health Week in Halifax, was also given at Heckmondwike and in Blackburn in order to assist in the propaganda work in those towns.

With the idea of promoting a widespread public interest in Smoke Abatement, Mr. Clinch laboured enthusiastically, giving several addresses on the subject to various types of audience, in addition to broadcasting by wireless from Leeds and Manchester stations. There is ample evidence that the public has at last really become interested in the smoke abatement campaign, and this is especially the case in Halifax, thanks to the publicity given by the local press to the Department's efforts. A short reference in the "Daily Mail" to Mr. Clinch's work brought scores of letters and enquiries to the office, and kept a clerk busy most of a week in dealing with them, showing how public opinion is being influenced by newspaper publicity.

A HEALTH WEEK was held from October 12th to 18th when the following events took place:—

Monday, October 12th. Meeting for women in Sion Schoolroom, Winding Road, in co-operation with the Women's League of Service. Mrs. Townend presided, and the Medical Officer of Health spoke on "Health Hints for the Home."

Wednesday, October 15th, in the Town Hall, under the auspices of the Halifax Council of Social Welfare. The Mayor (Alderman R. Thomas) presided, and a lantern lecture entitled "The Importance of a Clean Milk Supply" was delivered by Wilfred Buckley, Esq., C.B.E., Chairman of the National Clean Milk Society.

Wednesday, October 15th, at the Rotary Club, Dr. W. F. Dearden, J.P., of Manchester, gave an address on "Industrial Hygiene."

October 16th, 17th and 18th, at the Queen's Road Primitive Methodist Chapel, in the premises occupied each week as an Infant Welfare Centre, there was held a MOTHERCRAFT AND INFANT WELFARE EXHIBITION. This exhibition was on loan from the Central Council for Infant and Child Welfare (117, Piccadilly) and was in charge of a lady demonstrator. The voluntary workers and the staff worked hard to prepare for the exhibition and to demonstrate the exhibits. The opening ceremony was performed by the Mayor (Alderman R. Thomas) before a crowded assembly. Demonstrations at the stalls continued throughout the run of the exhibition, while lectures were given in ad-

run of the exhibition, while lectures were given in adjacent rooms. The Gas Committee arranged a stall to demonstrate the advantages of gas cookery, the lady demonstrator showing how to cook for infants and invalids. Dr. Latchmore and Miss Oram gave short lectures to mothers, the Medical Officer of Health gave

a lantern lecture on "Our War against Microbes," and Mr. H. G. Clinch gave a lecture entitled "How to Clean the Sky."

Although the opening ceremony was crowded the attendances at other times were not satisfactory. This may have been partly due to the fact that the exhibition was held so far from the centre of the town. Dr. Latchmore states, "It was felt that a Health Exhibition without any concession to human frailty in the way of competitions or entertainment did not make a strong appeal to the public of Halifax. One good result has appeared to follow the exhibition, perhaps due to the fact that the need for special care of the mother during pregnancy was emphasized, and this is a distinctly improved attendance at the ante and post-natal clinic, held on Thursday afternoon each week."

Undoubtedly a certain amount of good follows such propaganda work; it is useful to advertise the work which the various sections of the Health Department carry out, and to advertise the benefits which result from care of the body. But in these days when commercial advertising is done on such a large scale it is not easy to capture the public attention by such small "publicity" efforts as a staff of a Health Department is able to make. It must be remembered that the Department works at very high pressure to accomplish its many routine tasks, and some members of the staff find their leisure hours heavily encroached upon throughout the year. The preparation of lectures, addresses, and other forms of publicity, even on a moderate scale, is an extra burden which even enthusiastic workers find it hard to support; it is certainly impossible to undertake propaganda work to such an extent as to make it worth while. The difficulties of arranging a successful Health Week are great; it is not easy to get good lecturers, it is harder still in Halifax to get good audiences. The desirability of continuing the annual Health Week in such circumstances is questioned.

# Summary (for reference) of Nursing Arrangements, Institutions etc., (as required by Ministry of Health).

NURSING IN THE HOME—This is provided by:—
Halifax District Nursing Association.
Siddal Nursing Association.
Illingworth Nursing Association.
Luddenden Nursing Association.

General Nursing is not subsidised by the Local Authority.

MIDWIVES-See page 24.

CLINICS AND TREATMENT CENTRES—
The following are all provided by the Halifax Corporation:

Maternity and Child Welfare Centres (3) see page 26.

School Clinic, Horton Street—

Medical Inspection—Two half-days per week.

Minor Ailments—Six half-days per week.

Dental—Six half-days per week.

Ophthalmic—Two half-days per week.

Remedial Exercises—Two half-days per week.

Tuberculosis Dispensary, 8, Clare Road, see page 22.

Venereal Diseases Clinic, Royal Halifax Infirmary,

HOSPITALS provided or subsidised by the Corporation :-

Tuberculosis→The Sanatorium at Shelf provides accommodation for 25 early and 25 other cases. It is provided by the Halifax Corporation and receives cases from other districts, including Lancashire County and West Riding County.

The Health Committee has a call on 10 beds at the Bermerside Residential School, and they are filled by children in the pre-tubercular stage, or by children suffering from tuberculosis of a non-infectious character.

- Maternity Hospital—For Corporation's arrangement with St. Luke's Maternity Home and Royal Halifax Infirmary, see page 27.
- Hospital for Children—The Education Committee has an arrangement with the Royal Halifax Infirmary with reference to operations on tonsils and adenoids, and the Maternity and Child Welfare Committee an arrangement with the same Institution for the treatment of Ophthalmia Neonatorum.
- Fever Hospital—The Corporation provides the Stoney Royd Fever Hospital which admits cases of Scarlet Fever, Diphtheria, Enteric and other fevers from Halifax, and from the areas of neighbouring Local Authorities. Accommodation for 52 cases.

- Small Pox—The Halifax Corporation maintains the Small Pox Hospital at Belle Vue, Mount Tabor, which has accommodation for 36 patients. This hospital is subsidised by the Brighouse Joint Hospital Board and the Urban District Councils of Luddenden Foot, Midgley and Sowerby.
- Venereal Diseases.—The Corporation has an arrangement with the Royal Halifax Infirmary for both out-patient and in-patient treatment. See page 29.

AMBULANCE FACILITIES: -

- (a) For Infectious Cases—
  The Corporation's Motor Ambulance Service, worked from Stoney Royd Hospital, serves Halifax and the other districts from which cases are admitted to the hospital.
- (b) For non-Infectious and Accident Cases—
  (1) The Corporation's Motor Ambulance Service, worked by the Fire Brigade (Tel. 107).
  - (2) The Ambulance Service of the St. John Ambulance Brigade and British Red Cross Society. Commandant—Mr. A. E. Rawbon (Tel. 1697). Transport Officer—Mr. L. Chambers (Tel. 1831).

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#### General Summary of Meteorological Observations taken at the Public Library, Belle Vue, from January 1st, 1924, to December 31st, 1924. By E. Green, Librarian.

LATITUDE OF STATION = 53° 45° N. LONGITUDE = 1° 52° W. HEIGHT ABOVE SEA LEVEL = 625 FEET.

1924.	Atmosph Mon	re of sere in ib.		Tempe	rrature o	f Air in	Month.		Temp	esa erature.		Vapour.			of a Air.	Mean Re Therm	rading of					w	ind.							Rain.	
	Mr. F.						Mean		(Adep-		8	In a foot o	eubic of Air.	degree amidity.	Weight foot of	Nu.	111	the di				Relat	ive propo	ortion of				of Cleut.	Days	11	Remarks
Month.	Mean At and Sea	Bargo.	Highest.	Lowest.	Easter.	Of all Righest.	Of all Lowest.	Daily Bange,	Air.	Dew Points	Elastic Force	Mean.	Short of Saturation.	Mean Ht.	Mean	Maximum in Rays of Sun	Minimum on Grass,	Estima Streng	N.	N.E.	E.	8.E.	8.	8.W.	w.	N.W.	Calms	Men	No. of Days it fell.	Amount Collected.	
February March April May June July August September October November	29·856 30·006 29·844 29·766 29·820 29·983 29·770 29·777 29·777 29·463 29·463	1·514 1·298 1·270 0·806 0·770 1·042 1·104 0·988 1·234 1·550 1·540	47-9 54-7 60-1 69-9 71-3 82-0 71-3 67-0 62-1 53-9 53-9	23·9 19·9 29·1 35·0 38·0 46·5 44·2 41·0 32·1 31·1 34·1	24-0 34-8 31-0 34-9 33-3 35-5 27-1 36-0 30-0 22-8 19-8	42:0 44:1 50:2 56:6 62:8 62:9 60:7 60:2 55:8 48:5	32-0 28-4 33-8 42-2 46-3 49-8 47-7 48-0 42.8 38-9 40-1	10-0 15-7 16-4 14-4 16-5 13-1 13-0 12-2 12-5 9-6 9-5	36·4 36·0 41·5 48·9 53·0 55·9 54·0 53·6 48·2 43·3 44·7	33:5 37:7 42:8 50:0 52:1 50:0 49:0 43:8 40:8 40:7	·193 ·193 ·226 ·276 ·362 ·391 ·360 ·347 ·285 ·255 ·253	2·2 2·2 2·6 3·1 4·1 4·4 4·1 3·9 3·3 2·9 2·9	0·3 0·3 0·9 0 3 0·6 0 6 0·6 0·5 0·3 0·5	91 92 79 93 87 86 86 86 86 85	542·2 542·2 537·7 527·8 524·2 519·9 522·1 523·3 528·8 534·3 532·2	73·5 83·6 94·3 103·4 104·4 100·9 95·3 77·4 61·2 55·8	22·9 20·3 23·0 32·5 35·3 38·0 35·0 34·7 29·1 24·4 25·3	3·0 2·0 2·1 2·7 2·1 2·4 2·3 2·7 2·0 2·0 2·3	0	1 10 4 3 0 2 2 0 4 0 0 0	0 1 2 2 0 1 0 0 1 0 1 0	5 4 5 3 1 1 2 0 0 5 0 0 5	0 2 1 1 5 2 0 4 4 3 1 2	5 0 8 1 16 12 14 9 11 14 8 18	3 1 3 8 10 6 12 8 16 5 3 6	11 12 8 14 4 8 8 18 5 7 6 5	22 2 15 5 13 5 5 0 5 13 27 14	7·8 7·8 6·7 7·4 9·5 8·5 6·9 7·8 7·7 7·5	13 7 13 19	2·21 1·07 1·52 1·97 4·39 1·86 3·33 3·10 4·24 4·19 2·42 4·49	The observations have been reduced to mea values by Glaisher Barometrical & Diums Range Tables, and the Hygrometrical result have been deduced from the seventh edition of Hygrometrical Tables after corrections for Index errors of the Instruments employed

The Mean Monthly Readings of the Earth Thermometer, four feet below the surface, were as follows:— 
 January, 41°
 March, 39°
 May, 45°
 July, 53°
 September, 54°
 November, 48°

 February, 41°
 April, 41°
 June, 50°
 August, 54°
 October, 51°
 December, 46°

Highest Readings = 54° on July 17th to Oct. 1st.

Rain fell on 186 days, and measured 34.79 inches

Lowest Readings = 39° on March 10th to 25th.



