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COUNTY BOROUGH OF HALIFAX
HEALTH DEPARTMENT.

ANNUAL REPORT
ON THE HEALTH
OF THE BOROUGH
For the Year 1923.

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

HALIFAX.
Messrs. E. MORTIMER LTD., Printers, Regent Street.
1924.

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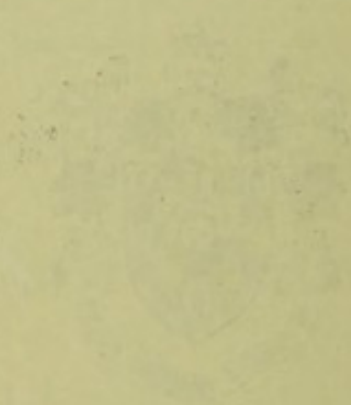
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HEALTH DEPARTMENT.

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COUNTY BOARD OF HEALTH
HEALTH DEPARTMENT

ANNUAL REPORT
ON THE HEALTH
OF THE COUNTY
FOR THE YEAR 1902

JOHN BAKER,
HEALTH COMMISSIONER

22

Health Committee

(as on Dec. 31st, 1923).

Mayor.

ALDERMAN ROBERT THOMAS.

ALDERMAN W. M. BRANSON, *Chairman*.

COUNCILLOR J. FOSTER, *Vice-Chairman*.

Alderman J. BROOKSBANK.	Coun. A. G. FARRAR.
„ T. HEY, J.P.	„ W. GREENWOOD.
„ A. W. LONGBOTTOM,	„ F. SHARP.
„ A. WALTERS. J.P.	„ J. LAW, J.P.
„ J. H. WADDINGTON.	„ F. SLATER, J.P.
Councillor P. BARRETT.	„ N. F. S. WINTER.

Sub-Committees

Appointed by the Health Committee.

Hospital Sub-Committee.

THE CHAIRMAN.	ALDERMAN WADDINGTON.
VICE-CHAIRMAN.	COUNCILLOR SHARP.
ALDERMAN HEY.	„ SLATER.

Cleansing Sub-Committee.

THE CHAIRMAN.	ALDERMAN LONGBOTTOM.
VICE-CHAIRMAN.	COUNCILLOR BARRETT.
ALDERMAN BROOKSBANK.	„ GREENWOOD.
„ HEY.	„ WINTER.

Accounts Sub-Committee.

THE CHAIRMAN.	COUNCILLOR FARRAR.
VICE-CHAIRMAN.	„ WINTER.
ALDERMAN WALTERS.	„ LAW.
COUNCILLOR BARRETT.	

Maternity and Child Welfare Committee.

The Health Committee with the following additional Members:—

MR. CHARLES NUNN.	MRS. LAVINIA LUMB.
MISS ETHEL DENTON.	MISS FLORENCE WHITLEY.

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

ALDERMAN W. M. BRANSON.	ALDERMAN LONGBOTTOM, J.P.
„ T. HEY, J.P.	COUNCILLOR BARRETT.

Staff of the Health Department.

*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.,

Veterinary and Meat Inspector.

† 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.

*‖§W. D. OVERY

Health Visitors.

*E. G. TINDLE, Tuberculosis Nurse.

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 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 1923.

INTRODUCTION.

*To the Chairman and Members of the Health
Committee.*

GENTLEMEN,

I have the honour to submit the 51st Annual Report on the health of the Borough, relating to the year 1923, together with an account of the activities of the Health Department during that period.

* * * *

The Report shows that the general deathrate, 13.8 per 1,000, though lower than last year, was higher than that of the aggregate 105 great towns (11.6). The Table on page 9 shows that the deathrate from the common infectious diseases compared very favourably with those of the 105 great towns, except in the case of influenza. Deaths from Diarrhoea and Enteritis (under 2 years of age) were lower (7.2) than in the 105 great towns (9.9).

* * * *

Infantile and maternal mortality were discussed at some length in last year's Report, and it is of interest to look closely into these figures once more. In the ten years 1881 to 1890 inclusive, the average number of children who died in Halifax during the first year of life was 161 out of every thousand born. It is most remarkable how this high mortality has fallen, for the infantile mortality during the last five years has averaged only 98 per 1,000. For 1923 the rate for Halifax was 90, which is fairly good, but is much higher than that for the aggregated 105 towns, the rate for which fell as low as 72, while for the whole of England and Wales the rate was only

69. The fact that the infantile mortality in Halifax is so much higher than the average for the country should stimulate us to still greater efforts in our Infant Welfare work.

* * * *

A year ago I pointed out that the fall in infant mortality was almost entirely due to saving of life among the infants in the second to the twelfth months of life, while there had been no improvement in the deathrate among the new-born (first month). This was studied side by side with the rather high mortality among Halifax women resulting from childbirth. It was then suggested that more medical supervision during pregnancy might possibly reduce this high maternal mortality and also the high mortality among the new-born infants. The statistics again show the deaths among new-born infants much the same as 30 years ago, while there were again 10 deaths of mothers in, or in consequence of, childbirth. The problem of reducing this maternal and neo-natal mortality is a complicated one, but there can be little doubt that in increasing the facilities for women to enter the St. Luke's Maternity Home, and the new Maternity Wards at the Royal Halifax Infirmary a step has been taken in the right direction, provided that adequate medical supervision during the months of pregnancy can be insisted upon. The facts concerning Halifax have been discussed with Dr. Janet Campbell, of the Ministry of Health, who has been making a special study of Maternal Mortality, and her report should be read by all who are interested in this important subject.* The Halifax statistics quoted in the report make unpleasant reading.

* * * *

Turning to the general sanitary work of the department attention must be drawn to the Report on smoke abatement on page 43. This work is being pressed forward because of the special knowledge of the work possessed by Mr. Clinch, and it is being developed on lines which are, I believe, unique. It is commonly held that a Smoke Inspector's duties consist in detecting and bringing to justice the owners of offending chimneys, and that it is not desirable for the Inspector to suggest a remedy. In Halifax during the last eighteen months an entire reversal of this policy has occurred, the Inspector placing his knowledge at the disposal of owners and firemen regarding defective plant and unskilful firing. The suggestions made have been welcomed, and letters of thanks have been received from firms who have in some cases not only done

*" Maternal Mortality," by Dr. Janet Campbell (Ministry of Health Report) H.M. Stationery Office. 1/- net.

away with smoke nuisances but have also profited by saving in fuel costs. There are numerous offending chimneys which remain to be dealt with, but the records show many specific instances in which chimneys which were a source of nuisance a year ago are now definitely free from nuisance. (Incidentally it may be suggested that the saving in fuel and increase in efficiency which have resulted have probably more than recouped the town for the amount of the Inspector's salary). I believe if this work can be continued for a few years in the present manner, concentrating on the chimneys one by one, Halifax will cease to be regarded as a smoky town; but there remains much to be done before this object can be attained.

* * * *

I wish to express my thanks to the Staff for the loyal manner in which they have co-operated in the endeavour to increase the efficiency of the department. It is a matter for regret that they have still to work in the unhealthy and overcrowded offices in the Town Hall, the attempts to secure satisfactory office accommodation having, so far, met with no success.

I am, Gentlemen,

Your obedient Servant,

CYRIL BANKS,

Medical Officer of Health.

HEALTH DEPARTMENT,

TOWN HALL,

HALIFAX.

APRIL 16TH, 1924.

REPORT.

General Statistics.

Area (acres)	...	...	...	...	13,984
Population (1923)	...	...	...	...	99,840

The Registrar-General gives this as his estimate for the mid-year population 1923. He arrives at the figure by adjusting the 1921 Census population, after allowance for (a) the rate of natural increase as evidenced by births and deaths (b) migration, as indicated by sources of information possessed by the Registrar-General. It will be observed that the estimate is 860 lower than the figure for 1921, and 660 lower than that for 1922.

Structurally separate dwellings occupied (Census 1921)	26,506
--	-----	-----	-----	-----	--------

Number of families or separate occupiers (Census 1921)	26,830
--	-----	-----	-----	-----	--------

Rateable Value—£656,828.

Sum represented by a penny rate—£2,450.

	Total	M.	F.	
Births—Legitimate	1,436	737	699	} Birthrate 15.2
Illegitimate	86	46	40	

Deaths—1,380	Deathrate 13.8
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Number of women dying in or in consequence of child-birth :—

From Sepsis	...	3	From other causes	...	7
-------------	-----	---	-------------------	-----	---

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

Legitimate	...	90.	Illegitimate	...	81.	Total	90
------------	-----	-----	--------------	-----	-----	-------	----

Deaths from Measles (all ages)	5
--------------------------------	-----	-----	-----	---

Deaths from Whooping Cough (all ages)	None
---------------------------------------	-----	-----	------

Deaths from Diarrhoea and Enteritis (under 2 years of age)	11
--	-----	-----	-----	-----	----

	Birthrate per 1,000 Total Population	Annual Deathrate per 1,000 Population							Rate per 1,000 Births		
		ALL CAUSES	Enteric Fever	Small-Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Diarrhoea and Enteritis (under two years)	TOTAL DEATHS under one year
England and Wales ...	19.7	11.6	0.01	0.00	0.14	0.03	0.10	0.07	0.22	7.7	69
105 County Boroughs and Great Towns including London ...	20.4	11.6	0.01	0.00	0.15	0.03	0.12	0.09	0.22	9.9	72
HALIFAX ...	15.2	13.8	0.01	0.00	0.05	0.01	0.00	0.02	0.30	7.2	90

(Provisional figures. Populations estimated to the middle of 1922 have been used for the purposes of this Table. 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:—

Notifiable Diseases during the year.

DISEASE	AGE PERIODS												Cases admitted to Hospital
	Under 1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 and upwards	Total
Typhoid Fever	—	—	—	—	—	1	2	—	—	—	2	—	5
Deaths ...	—	—	—	—	—	—	—	—	—	—	1	—	1
Scarlet Fever	—	1	3	6	4	51	36	17	11	2	—	—	131
Deaths ...	—	—	—	1	—	—	—	—	—	—	—	—	1
Diphtheria ...	1	1	—	7	2	6	11	9	6	1	—	—	44
Deaths ...	—	—	—	1	—	1	—	—	—	—	—	—	2
Puerperal Fever	—	—	—	—	—	—	—	—	1	1	—	—	2
Deaths ...	—	—	—	—	—	—	—	—	1	—	—	—	1
Erysipelas ...	1	—	—	—	—	1	—	2	1	2	9	—	19
Deaths ...	—	—	—	—	—	—	—	—	—	—	—	—	3
Ophthalmia Neonatorum	13	—	—	—	—	—	—	—	—	—	—	—	13
Deaths ...	1	—	—	—	—	—	—	—	—	—	—	—	1
Cerebro-Spinal Fever	—	—	—	—	—	2	—	—	1	—	—	—	3
Deaths ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia—	—	—	—	—	—	—	—	—	—	—	—	—	—
Influenza ...	—	—	—	—	—	—	—	—	4	2	1	1	8
Deaths ...	—	—	—	—	—	1	—	—	4	2	3	3	13
Primary ...	1	1	—	1	—	1	1	2	4	2	3	1	17
Deaths ...	2	—	1	—	—	2	2	2	12	5	15	5	46
Tuberculosis—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	—	—	—	—	8	4	4	41	23	14	2	96
Deaths ...	—	1	1	—	—	2	1	6	24	20	23	1	79
Other Forms ...	—	—	—	—	2	9	7	6	5	1	1	—	31
Deaths ...	3	4	1	—	—	2	2	3	5	3	—	—	23
Total Notification ...	16	3	3	14	8	79	61	40	74	34	30	7	369
Total Deaths ...	6	5	3	2	—	8	5	11	46	30	42	9	167
													221

For notes on these figures see following pages.

Typhoid (Enteric) Fever.

The notification figures give a wrong impression as to the actual prevalence of this disease; five cases were notified and sent into hospital, but the diagnosis of enteric fever was not confirmed in any case; obscure illnesses not infrequently resemble typhoid fever. The death from the disease recorded in the Table was that of a patient notified during the previous year who died early in 1923.

Scarlet Fever.

1923 was a very good year, even better than 1922, this disease being scarce and of mild type. A series of cases occurred, spreading over several months at the Crossley and Porter Schools, including 10 boarders, but the outbreak never became of an explosive character. The Staff of the department co-operated closely with the medical attendant of the School and the Matron, and in addition to prompt removal to hospital of all the cases, contacts were kept under supervision and steps taken to keep the outbreak under control.

Diphtheria.

Only 44 cases were notified, this being a particularly low number; of these many were not cases of true diphtheria, but were sent into hospital on suspicion so as to give the patients the benefit of the doubt—a wise precaution on the part of the doctors concerned. 37 of the cases were admitted to hospital.

The School doctor and his staff did valuable work in supervising School "contacts" and in taking throat swabs for bacteriological examination when necessary.

Puerperal Fever.

Two cases were notified, with one death. One of the cases was admitted to a General Hospital. These figures do not represent the true position, some cases having probably escaped notification, for three deaths were registered as due to puerperal sepsis.

Ophthalmia Neonatorum.

See also Maternity and Child Welfare Section, page 20.

The following Table classifies the notified cases :—

Cases.			Vision Unimpaired	Vision Impaired	Total Blindness	Death
Notified	Treated.					
	At Home	In Hospital				
13	2	11	11	*2	—	†1

*(a) 1 eye, Vision much impaired ; 1 eye totally blind.

(b) Vision much impaired in both eyes.

† Died Broncho-pneumonia.

Cerebro-Spinal Fever.

Three cases of cerebro-spinal fever were notified, and of these, two were admitted to the Royal Halifax Infirmary and one to the Stoney Royd Fever Hospital. It is pleasing to notice that all three cases recovered under modern methods of treatment.

Pneumonia.

It will be noticed that although 13 deaths were registered as due to influenzal pneumonia, only 8 were notified during life. Similarly 17 cases of primary pneumonia were notified, but 46 deaths were registered as due to this disease. This indicates that the notification of primary and influenzal pneumonia according to the regulations is not being satisfactorily carried out.

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.	Rishworth U.D.C.	Barkisland U.D.C.	Shelf U.D.C.	Luddenden Foot U.D.C.	Total
Enteric Fever ...	5	—	—	—	—	—	—	5
Scarlet Fever ...	97	9	2	1	2	4	—	151
Diphtheria ...	37	—	—	—	—	—	1	38
Other Diseases (including observation cases) ...	11	—	—	—	—	—	—	11
TOTALS ...	150	9	2	1	2	4	1	169

The hospital was less busy than usual, 169 admissions being made, contrasted with 292 the previous year.

As mentioned previously, the five cases sent in as Enteric Fever proved to be suffering from various other diseases.

Among the cases sent in as Diphtheria were two upon which the operation of tracheotomy had to be performed by the medical officer, in one case with complete success, but in the other the disease was too far advanced for this procedure to be successful. Among "other diseases" was one case of cerebro-spinal fever of severe type; complete recovery resulted after numerous spinal punctures and injections of Anti-meningococcal Serum. Two cases of Diphtheria were moribund on admission and died within 24 hours.

It will be noticed that of 169 admissions, 19 were cases sent in and paid for by the authorities of districts outside the Borough.

In the last Annual Report the hospital was described as being far from ideal from the structural point of view. During 1923 an attempt was made to improve the conditions as far as possible by reducing the number of beds in each ward. Previously the accommodation was registered as 72 beds, but with a re-arrangement, so as to give to each bed the full floor space which it should have according to reasonable standards, the accommodation is now reduced to 52. It may in future be necessary to limit the admission of cases from the areas of neighbouring local authorities.

Somewhat extensive repairs and plumbing work have been necessary to renew worn out buildings, and the laundry roof had to be supplied with further support.

Luddenden Joint Hospital Board.

When Warley became part of the Borough, the Corporation took over Warley's responsibilities of partnership in the Luddenden Joint Hospital Board. Since then the Corporation has paid very considerable sums of money each year as its share of the Board's expenditure. Nothing has been received in return, because cases of infectious disease from the Warley district have had the advantage

of being treated in the Corporation's own fever hospital at Stoney Royd. The Board maintains a small hospital, but the total number of cases admitted to it has been so ridiculously small for many years past, that the Halifax Corporation, as a body which has to share the cost, may well ask whether the expense incurred has been justified. The Corporation has in fact approached the Joint Board with a suggestion that the Board's hospital should be closed, and a contract entered into by which cases from the districts concerned should be treated in the Stoney Royd Hospital. Such an arrangement should reduce the Board's expenditure to a minimum. By limiting the number of cases received into Stoney Royd Hospital from various districts with which the Corporation has no specific agreements (such as Stainland, Greetland, and Shelf), there should be no difficulty in providing accommodation in Stoney Royd Hospital for the few cases which are to be expected from the Board's area. The scheme recommends itself as a mode of eliminating unnecessary expenditure on the part of the Corporation. The negotiations were in progress at the end of the year.

Disinfection.

The steam disinfecter is situated at the Borough Fever Hospital, Stoney Royd, and 8,157 articles of bedding, clothing, etc., were disinfected during the year. Also 85 library and other books were disinfected in a special apparatus which is provided for that purpose. 350 rooms in private houses were disinfected.

Tuberculosis.

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 :—

AGE PERIOD		TUBERCULOSIS							
		*NEW CASES				DEATHS			
		Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
		M	F	M	F	M	F	M	F
Under 1 year	...	—	1	2	—	—	—	2	1
1 to 5 years	...	2	1	2	3	1	1	3	2
5 to 10	...	5	4	5	5	1	1	1	1
10 to 15	...	2	2	6	3	—	1	1	1
15 to 20	...	2	4	4	4	3	3	1	2
20 to 25	...	6	9	2	2	2	5	2	—
25 to 35	...	15	16	2	1	8	9	1	2
35 to 45	...	18	8	3	1	9	11	2	1
45 to 55	...	9	3	1	—	11	3	—	—
55 to 65	...	9	—	—	—	9	—	—	—
65 and upwards	...	2	—	—	—	1	—	—	—
TOTALS	...	70	48	27	19	45	34	13	10

*Includes primary notifications, and cases not notified during life, but first intimated by death returns.

The deaths of non-notified cases represent 36 per cent. of the total deaths from Tuberculosis.

Health Visiting (Tuberculosis).

This work is now carried out not only by the special Tuberculosis Health Visitor, but also by the health visitors of the Maternity and Child Welfare Department, the duties of the staff having been re-arranged. This has been

facilitated by the decision of the Council to increase the total number of health visitors, a further health visitor on the general staff being appointed to commence duty in January, 1924. The number of repeat visits to patients has considerably increased.

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 Department :—

M.	F. (Children under 16)	
67	50	25 ... 117

Of this number, 5 died before notification was received
26 within 3 months of notification

7 „ 12 „ „

Notified persons visited by the Nurses ... 109

Repeat visits by Nurses ... 1,671

New cases examined at the Dispensary ... 126

(13 per cent. of the new cases were contacts compared with 8 per cent. in 1922).

The visiting of houses and examination of contacts has been much more efficiently done under the new scheme of co-operation (see Annual Report for 1922, page 18) between the Health Visitors and the Dispensary under the direction of Miss Oram.

Cases attending Dispensary ... 289

Attendances at Dispensary ... 1,580

Disposal of Cases :—

60 were sent to the Sanatorium.

8 were sent to the Open-air School.

14 were sent to the Bermerside Home.

12 were admitted to St. Luke's Hospital.

11 were admitted to The Royal Halifax Infirmary.

10 were treated at the Dispensary with Tuberculin and other special methods.

Discharged Soldiers :—

122 attended the Dispensary with 542 attendances.

164 Reports under 22A of Memo 30/I were sent to the Local War Pensions Committee.

Specimens examined etc.

Urines ... 12 all negative.
Sputa ... 390 Positive 29 per cent.
Negative 71 per cent.

Total ... 402

Memo. 286 of the Ministry of Health as to co-ordination of the work of Tuberculosis Officer and Insurance Practitioner is receiving careful attention. In Halifax co-operation in this matter has always been of a most cordial character, and the spirit of the Memorandum has been observed for some years. Between 200 and 250 consultations (either by telephone, letter or personal interviews) take place annually between the Tuberculosis Officer and the Insurance Practitioner, and a large number of these have dealt with the diagnosis of cases, and placing at the disposal of the Doctors special Dispensary facilities, such as X Ray, Sputum, and other methods of investigation.

Hospital and Sanatorium at Shelf.

Admissions and Discharges during the year :—

	Halifax cases	Other Cases	Total
Remaining in on December 31st, 1922 ...	22	10	32
Admitted during the year... ..	*61	54	115
	83	64	147
Discharged during the year	67	50	117
Remaining in on December 31st, 1923 ...	16	14	30

*Includes 13 ex-soldiers, but in only 5 of these was the disease finally given by the Ministry of Pensions as due to or aggravated by war service.

Grouping of cases admitted during the year :—

A. *Non-Pulmonary* :—4 cases (2 Peritoneum, 1 Hip, 1 Spine).

B. *Pulmonary* :—

Group 1. For observation—4 cases finally diagnosed as not Tuberculosis, viz. :—Neuritis, Mitral Disease, Anaemia, and Bronchiectasis.

Group 2. Early Cases ... 8 16 24 22

Group 3. Intermediate Cases... 29 23 52 49

Group 4. Advanced Cases ... 15 16 31 29

Total—Groups 2, 3, 4... 52 55 107

The small percentage of early cases (10 per cent. less than last year) is very disappointing, as in these cases the results of Sanatorium treatment are always much more satisfactory. This decrease in the number of early cases in spite of more active search of contacts, gives rise to two questions, viz. :—(1) Is the type of pulmonary infection by tubercle bacilli altering? or (2) Is the greater publicity of the dangers of infection with resulting notification, loss of work, and measures of prevention, leading to concealment, and to avoidance of seeking medical advice for the sometimes slight altered state of health, which are the signs of the disease in its earlier months? A wide survey of the problem then can be conducted in Halifax, and will be necessary to answer these questions.

Excluding four who died or left within ten days of admission, the average length of stay was 117 days as compared with 96 in 1922. This is an improvement and it may be taken as a generally true axiom that the longer the Sanatorium treatment, the more permanent will be the improved health.

The condition of the patients discharged was as follows :

		Improved.	No Definite Change.	Worse.	Dead.	Total.		
		63	29	14	11	117		
The deaths were distributed as follows :—							M.	F.
Halifax	(Pulmonary Tuberculosis	...	...	...	...	4	3	
"	(Spine)	...	...	...	...	1		
"	(Bronchiectasis)	...	...	...	...	1		
Outside	Cases	...	...	...	...	2		

The larger number of deaths at Shelf is partly attributable to the fact that the Isolation Wards for advanced cases at Stoney Royd are no longer available, and partly to the increasing number of cases which are only notified or discovered when the disease has made considerable advance (Groups 3 and 4).

Tuberculosis After-care Committee.

The Tuberculosis After-care Committee of the Council of Social Welfare continues its excellent work in looking after the material needs of sufferers from tuberculosis. Consumptive persons require help beyond medical attention ; their diminished earning power over long periods results in poverty. The After-care Committee, through its Secretary, Mr. Genner, and its band of voluntary workers, keeps in touch with cases discharged from Sanatorium or reported from the Tuberculosis Dispensary, and as far as possible

provides the necessary assistance. Such help as the Corporation has power to provide (extra nourishment, etc.) is granted through the After-care Committee to cases reported upon as deserving. Efforts are made to secure suitable employment for tuberculosis persons, and to help in solving the many difficulties which arise in families invaded by the disease. This work is being done thoroughly and conscientiously by the members of the Committee, though the general public hears little of it; it is work of value to the community and is to be highly commended. Donations are urgently needed and may be sent to Mr. H. L. Genner, Council of Social Welfare, Rawson Chambers.

Mr. Genner supplies the following statement of work done :—

66 patients have been regularly visited and 310 reports have been received from the visitors; of these 23 have been new patients and 43 patients who have been visited in previous years.

Recommended to the Health Committee for milk	...	27
Other nourishment provided	... ..	6
Recommended for dentures	... ..	2
Work found	... ..	1
Children recommended for Bermerside School	...	5
Homes found for children...	... ..	3
Convalescent treatment for contacts...	... ..	2
Other assistance in beds, bedding and clothing, etc.	...	6

The two following cases are given in order to illustrate the work of the Committee :—

A married man, with three children, has been twice at a Sanatorium. When he was discharged, some years ago, the Committee got him suitable work. The family have been visited ever since, and have been helped whenever a breakdown in health has caused the man to be off work. One child developed the disease and had to go to the Sanatorium, while another, who was delicate, was recommended for the open air school at Bermerside. Both the man and his daughter, by careful supervision and timely assistance, have been enabled to keep their occupation now for more than four years.

A man and his wife both died of tuberculosis within a short time of each other. They left two children, aged 7 and 5 respectively. Arrangements were made for them to go to live with grandparents, and the Committee are carefully watching the children, both of whom are delicate. Special nourishment is being given, and their health has considerably improved.

Maternity and Child Welfare.

Dr. Alice Latchmore, Medical Officer in charge of Maternity and Child Welfare work, reports as follows:—

Midwives.

Number practising in the Borough of Halifax during the year	... ..	34
Number holding the Central Midwives Board Certificate (by examination)...	... ..	29
Number of <i>bona fide</i> Midwives (<i>i.e.</i> , 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 summoned by Midwives	... ..	108

Halifax Borough would appear to be fortunate in having such a large number of trained certificated nurses in practice, but nine of the above number are on the staff of St. Luke's Hospital and Maternity Home, only a proportion of whom are regularly practising midwifery (in the Institution), and four are on the staff of the District Nursing Association who are only called upon for Midwifery work in times of pressure. This reduces the number of enrolled trained certificated midwives available for service in the homes of the mothers to 16.

It must be remembered, however, that in addition to this official list, there are several trained certificated "Midwives" in Halifax, who prefer to work as so-called "Maternity Nurses," (for want of a clearer designation) and who thus do not come under the supervision of the Local Sanitary Authority.

A midwife is legally allowed to conduct a normal delivery on her own responsibility, without a doctor being present.

A clearer definition of terms and duties is urgently called for, as, at present, any ignorant untrained woman may style herself a Maternity Nurse, and may be engaged to nurse a lying-in woman, provided that a doctor has undertaken to attend the case.

The danger to the patient lies in the fact that the duration of labour is very variable, and the woman in attendance is (in the absence of the doctor), often obliged to undertake duties, upon the correct performance of which, the safety of mother and child depends.

This happens frequently where both the doctor and the woman in attendance act conscientiously, and there have been countless cases where little or no attempt has been made to ensure the doctor being present at the critical time, and it is exceedingly difficult to prove the neglect.

Authoritative suggestions have been made to the Central Midwives Board, as to the necessity for clearing up the confusion in the public mind, between Midwives and Maternity Nurses, and legally distinguishing trained certificated Maternity Nurses, with whom the mother should be safe, from untrained, unsafe women, who at present are allowed to use this title.

Disciplinary Measures during 1923.

One "bona fide" midwife was removed by the Central Midwives Board from the Midwives Roll for breaches of the rules, on December 19th, 1923. The chief offence consisted in neglecting to call in a doctor to a case of ophthalmia neonatorum after previous warnings on this point.

One trained certificated midwife was censured by the M.O.H. for neglecting to call a doctor to a case of ophthalmia neonatorum, and warned that if a further cause for complaint arose, she would be brought before the Central Midwives Board. This being the first complaint, the case was not taken further. It is to be hoped that by thus emphasizing the gravity of the offence, we may attain to a yearly record of undamaged eyes.

The Midwifery Service carried on by the Halifax District Nursing Association in the Bradshaw Area.

It is gratifying to report that the Halifax District Nursing Association have at length procured a settled residence for the midwife who serves this district, and that the work is progressing favourably in her hands. She took 37 cases during the year. In 24 of these she had sole charge as "Midwife." In the remaining 13 she acted as "Maternity Nurse" under the doctor in charge.

NOTIFICATION OF BIRTHS ACT:—

Number of births notified...	} including births transferable to other districts.	{	1,443
Number of births registered			1,560
Ratio of notified to registered	...	...	92.5 %
Number of stillbirths	...	...	60
Number of notified births attended by Doctors			529

Number of notified births attended by Midwives	646
Number of notified births attended in St. Luke's Maternity Home 	174
Number of notified births attended in St. Luke's Hospital 	54
Number of notified births attended in other institutions 	40
Notifications from Midwives of sending for Medical help 	108
Notifications from Midwives of intention to resort to artificial feeding 	9

Comparing the notified live births with the registered births, it will be noticed that 117 were not notified, which points to continued negligence with regard to this obligation. The ratio of notified births to registered births is about the same as for 1922. The omission to notify a birth may make a great difference to the welfare of the child concerned, as an un-notified case may not receive a visit from a health visitor for two months or more and may have suffered meantime because of the lack of advice concerning nurture and feeding which it is the health visitor's duty to give.

Where a case is notified, it is the duty of the health visitor to call as soon as the doctor or midwife in charge of the case has ceased to attend. Un-notified cases reach us at a much later date per Register of Births.

It is often about this time, when the mother is resuming her household duties, that the breast milk may seem to be insufficient to satisfy the child, and she is perplexed as to the best course to take, *i.e.*, whether to try to supplement her scanty supply by small quantities of diluted milk given by spoon, bottle, or to wean the child entirely.

Our health visitors are often able to give helpful counsel at this time in favour of persevering with

BREAST FEEDING

even though the mother cannot entirely satisfy the child.

The old erroneous idea that mother's milk and some other form of diluted milk "will not mix" has still to be combated.

It is very encouraging to report that breast feeding entirely or in part, is increasingly practised by the mothers in the Halifax Borough. The Senior Health Visitor, Miss Oram, has worked out the following figures from the records kept at the Centres:—

54% of the infants visited during 1922 were breast fed for 6 months and over.

25% of the infants visited during 1922 were weaned under 1 month.

14% of the infants visited during 1922 had breast supplemented with bottle feeds for 6 months and over.

1923 (babies born during first 6 months) :—

60.5% breast fed for 6 months and over.

16% weaned under 1 month.

18% breast supplemented with bottle feeds for 6 months and over.

During 1923, of the notifications visited, 1,052 infants were breast fed at first visit, 85 partly breast fed, and 165 artificially fed.

HEALTH VISITING SUMMARY :—

Primary Visits	...	1,362
Visits, 1-5 years	...	2,394
Repeat visits under 1 year		5,769
Ante-natal visits	...	25

CLINICS—Infant Welfare :—

Wade Street— Number of sessions, 134.

Wednesday ; morning & afternoon sessions.

Friday ; morning session.

New cases, 414.

Re-visits, 3,365.

Queen's Road—Number of sessions, 88.

Tuesday ; Morning and Afternoon sessions.

New cases, 290.

Re-visits, 2,822.

Range Bank— Number of sessions, 44.

Monday ; Afternoon session.

New cases, 100.

Re-visits, 1,050.

Total new cases, 804.

Total re-visits to clinics, 7,237.

Ante and Post-natal Clinics :—

Wade Street— Number of Sessions, 44.

Thursday ; Afternoon session.

New cases, 90.

Re-visits, 310.

Although 74 fewer births occurred than in the previous year, the attendances of new cases at the infant welfare centres were only 7 less than in the previous year, while the number of subsequent attendances increased. There was also a slight increase in the number of attendances at the ante-natal clinic. The number of new cases attending the infant welfare centres was equivalent to considerably more than half the number of babies born in Halifax during the year.

Sewing Class for Mothers.

A Sewing Class to help mothers in the cutting out and making of infant clothes, has been started on Thursday afternoons, and we hope that it may prove a boon to those mothers who have had little opportunity of acquiring skill in such matters.

Co-ordination with School Medical Service.

Some of the medical record cards giving notes concerning the health and development of the children who have been under supervision at the Child Welfare Centres, have now been forwarded to the School Medical Department. It is the aim of the M.O. and health visitors to keep in touch as much as possible with the infants who have passed through the Centres up to the age of 5 years, but, as mothers often find it impossible to bring toddlers and infants to the Centres at the same time, and the health visitors find the greater part of their available time for visiting taken up by the 1 to 12 months babies, the supervision of the older children is very difficult.

Changes in Staff.

The need for more frequent visits to children up to five years of age, increased ante-natal visiting and an extension of tuberculosis health visiting caused the Medical Officer of Health to request the Council to appoint two additional health visitors to the general staff. This the Council agreed to do, and it was disappointing to find that the Ministry of Health would only agree to the appointment of one additional visitor at the time, the appointment of a second to be considered later. Miss Sutcliffe, a trained nurse with additional qualifications was engaged to commence work on January 1st, 1924, but unfortunately Miss Overy, a valued member of the staff, was taken ill and found it necessary to relinquish her work at the end of the year, so that it will be some time before the actual increase of staff is realised.

Maternity Home Accommodation.

There exists a Maternity Home for paying patients at St. Luke's Hospital ; there are private nursing homes which admit maternity cases, and the Royal Halifax Infirmary is being provided with a lying-in department. The Maternity and Child Welfare Committee has been for a long time considering the advisability of making arrangements so that no woman, through lack of means, shall be debarred from entering a suitable institution for her confinement or for in-patient treatment which may become necessary during pregnancy.

Negotiations took place with the Infirmary Board and with the authorities at St. Luke's, and a scheme was submitted for the approval of the Ministry of Health. Under this scheme, the Corporation, through the Maternity and Child Welfare Centres, may authorise the admission of needy patients to the institutions mentioned ; the Corporation will hold itself responsible for the charges and the patients will be called upon to refund to the Corporation such portion of the amount as they can afford to pay. For this purpose a scale suggested by the Ministry has been adopted, so that the amount to be collected from the patient will be graduated according to the family income. (The scale appears in the Council Minutes, 1924, page 310). I suggest the Committee should insist that women who expect to make use of these facilities must attend the ante-natal clinic during pregnancy. The reason for this is that the high mortality among Halifax women in child-birth is not likely to be reduced to any great extent by merely sending them to a maternity home for the confinement ; extensive improvement is only likely to occur if women will remain under medical supervision during pregnancy so that morbid conditions may be discovered early and treated promptly and appropriately.

Voluntary Workers.

It is again a privilege to be able to express high appreciation of the service rendered by the ladies who give so much of their time to the work of the clinics. But for them, the staff of paid workers would have to be greatly increased.

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 6-30 to 8-30 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 refer to local patients attending the Treatment Centre :—

	Local Clinic	Other Clinics
Number of persons dealt with in connection with the out-patient clinic, for the first time during the year, and found to be suffering from :—		
Syphilis	57	—
Gonorrhoea	89	—
Conditions other than Venereal ...	126	—
Total	272	—
Total attendances at the out-patient clinic	5,044	34
Aggregate number of in-patient days ...	1,133	—
Number of doses of Salvarsan Substitutes given	388	9
Specimens sent to an approved Laboratory for :—		
Detection of Spirochaetes ...	7	—
Detection of Gonococci ...	4	—
Detection of other organisms ...	1	—
Wassermann Reaction	365	—
Total	373	—

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

There are 3 medical practitioners, not including the two officers of the clinic, in the Borough, qualified to receive free supplies of Salvarsan substitutes.

There were 124 specimens sent to the pathological laboratory provided by the Council, by the general practitioners during the year.

Mental Deficiency.

The M.O.H. is Medical Officer to the Committee for the Care of the Mentally Defective.

The duty of this Committee is to promote the welfare of those classes of mentally defective persons who come within the meaning of the Mental Deficiency Act, 1913. Cases are brought to the notice of the Committee by the Education Authority, the Board of Guardians, the Police, the Council of Social Welfare, and other bodies. Those persons who can safely be left in their home surroundings are visited from time to time, so that the helping hand may be held out whenever changed circumstances demand it. Those who can with advantage be placed in approved institutions are so dealt with.

The Corporation bears a share of the responsibility for the Mid-Yorkshire Institution at Whixley, a very fine home to which male defectives are sent. Female defectives are sent to suitable institutions as vacancies occur; the Institution of the Halifax Board of Guardians has been approved by the Board of Control for the purpose of receiving a number of adult defectives, and the Committee has gladly made use of this accommodation, especially for females.

The value of the work performed by the Committee must be recognised as very high, especially when it is remembered that many of the cases now in institutions would otherwise be producing offspring suffering from similar mental infirmity. In addition it can be claimed that many of these unfortunate people are enjoying in institutions a life sheltered from the torments and hardships to which they might be liable if allowed to remain in the poorer parts of the town.

The Sanitary Inspectors are appointed visitors to the defectives under the supervision of the Committee, but it was hoped that with an increase in the staff of women Health Visitors these duties might be transferred to the latter. The Ministry of Health, however, has not sanctioned the increase in staff which local needs require, and therefore it has not been possible to transfer the work to the Health Visitors.

During the year the Committee considered very carefully a draft scheme for a Halifax Voluntary Committee for Mental Welfare. The objects of such a voluntary Committee would be to assist the various official bodies which are responsible for mentally defective persons of all ages and types, and to link up all agencies dealing with such persons. The originators of the scheme did not convince the Committee of its practical utility at the moment, and no further action was taken.

The following Table shows the cases under the care of the Committee on December 31st, 1923 :—

1. Under " Order "	M.	F.	Total
(a) In Institutions	17	9	26
(b) Under Guardianship	Nil	Nil	Nil
2. In Institutions or under Guardianship 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 "	1	Nil	1
4. Under Statutory Supervision	28	21	49
5. " Subject to be dealt with," but action not yet taken :—			
(a) Notified by Local Education Authority, Sec. 2 (1), (b) (v)	1	Nil	1
(b) Otherwise " ascertained "	Nil	1	1
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	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 :—

Diphtheria Swabs	...	169
Blood for Typhoid	...	4
Faeces for Typhoid	...	3
Urine for Typhoid	...	3
Sputum for Tubercle	...	404
Cerebro-spinal Fluid for Tubercle	...	1
Urine for Tubercle	...	12
Total	...	596

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 43 samples examined, 9 proved to contain tubercle bacilli, and these tests provided a reliable basis for administrative action in regard to the affected cows.

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 and 1881.

Water Supply.

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

Rivers and Streams.

There is nothing new to report.

Drainage and Sewerage.

Mr. Tipple, the Borough Engineer, informs me that :—

“ During the year now closing, the main sewerage scheme at Ovenden has been completed at a total cost for scheme No. 1 of £20,913 and scheme No. 2 of £6,870, being in the aggregate £27,783 for the entire scheme.”

"The defective walled sewer from Hopwood Lane to Mackintosh Street has been replaced by a sewer of modern construction at a cost of about £1,104, also a new sewer is in progress in Court Lane and High-road Well Lane, for the purpose of draining property now in course of erection near the West End Golf Links."

Closet Accommodation.

Progress has been made with the scheme for the conversion of the pail closets of the town into water closets. Under Section 126, Halifax Corporation Act 1900, the Corporation may call upon owners to convert pail closets to water closets, but the Corporation must bear the cost, unless the closets have been certified by the Medical Officer of Health to be insufficient, or a nuisance, or injurious to health. On March 7th, 1923, the Council approved a scheme for converting 16,717 pail closets into water closets, the work to be spread over eight years, and for this purpose the Borough was divided into eight areas, the boundaries of which were set out in the Council minutes. As the Corporation would have to bear the whole cost under the Halifax Corporation Act, 1900 (some £250,000), the Council on May 2nd, 1923, decided to make application to the Ministry of Health for the issue of a Provisional Order to vary the Halifax Local Acts so that the Corporation could recover one-half the cost of conversions from the owners of the buildings. On December 12th, the Ministry of Health held a public enquiry in Halifax as to the application for the Provisional Order, and the position at the end of the year was that the Corporation was awaiting the decision of Parliament on the application. In the meantime the Council had let it be known that it was prepared to consider applications for half the cost of conversions (up to a certain limit of cost) voluntarily carried out by owners, and up to the end of the year the number of closets in connection with which the Health Committee had recommended that grants should be paid was 87. Applications are received and presented to the Health Committee by the Borough Engineer, who investigates the circumstances and costs of each individual case.

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

Privy Middens (mostly in rural areas)	397
Water Closets	9,226
Pail Closets, where water supply and sewers are available for conversion	16,677
Pail Closets, in rural areas without water supply and sewers	2,000
	<hr/> 28,300

Scavenging and Refuse Disposal.

The work is carried out under the Cleansing Superintendent, who is directly responsible for his department to the Health Committee. The Medical Officer of Health acts in an advisory capacity as regards the problems of sanitation which present themselves from time to time.

The plant installed at Charlestown during 1922 for dealing with fish and meat offal has proved satisfactory from the sanitary point of view. The material is now got rid of without nuisance, no complaints having been received since the plant replaced the old pulveriser which was formerly the cause of so much offence. Mr. Sagar, the Cleansing Superintendent, states that he is well satisfied with the venture on the financial side.

House refuse is being collected to a much greater extent in metal bins, which are gradually replacing the old wooden tubs.

The Cleansing Superintendent is not yet able to say that the new salvage plant is working, but by the time this Report is published it may be in operation. This new method of dealing with house refuse will be watched with great interest.

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	...	...	208
District B.	Mr. Clinch	...	...	283
District C.	Mr. Wilson	...	...	132
District D.	Mr. Teal	...	...	56

The total number of visits paid by the Inspectors to factories and workshops during 1923 was 759.

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 Depart-

ment by H.M. Inspector of Factories, is shown in the following Table :—

	DISTRICTS			
	A	B	C	D
Defects outstanding Dec. 31st, 1922 ...	12	14	14	5
Defects discovered during the year ...	35	44	14	6
Totals ...	47	58	28	11
Defects remedied	47	56	27	10
Outstanding Dec. 31st, 1923	-	2	1	1

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 278 visits to bakehouses, or premises proposed to be used as bakehouses, and the following summary indicates the defects dealt with :—

Nature of Defects.	Number Reported	Number Remedied.
Offensive Fumes from Coke Oven Fire	1	1
Limewashing Overdue	27	27
Defective Roof and Ceiling	2	2
Want of Troughing	1	1
Insufficient Light... ..	1	1
Accumulation of offensive material ...	1	1
Register not properly kept	1	1
No Abstract of Factory and Workshop Act, 1901	2	2
Totals ...	36	36

Outworkers.

There is still some slackness on the part of employers to notify the Health Department twice yearly (on February 1st and August 1st) of the outworkers employed. There were three lists received during the year, and the number of outworkers reported as being employed was as follows :

Classification (31)—1 list.

Mending, worsted coatings :—Workmen ...	...	0
Contractors ...	...	1

Classification (1)—2 lists.

Making wearing apparel :—Workmen	...	...	0
Contractors	...	...	2

The Sanitary Inspectors paid 21 visits to the out-workers, but quite a number, who have workshops of their own, were visited in that capacity.

Ice Cream Makers and Vendors.

During the year the Inspectors paid 73 visits to these premises. In two instances exception was taken to premises on the ground of unsuitability, by reason of the commodity being manufactured and stored in a room used, in one instance, as a sleeping room, and in the other communicating directly with such a room. The use of these premises for this purpose was discontinued.

With regard to the premises of itinerant vendors, the licensing authority, acting in co-operation with the Health Department, make the issue of a license contingent upon a favourable report,—as to the suitability of the premises—from this department. The premises generally were found to be satisfactory.

Nuisances and Defects.

The work of the Sanitary Inspectors in dealing with insanitary conditions is so varied, and covers such a large field of action, that it does not readily lend itself to tabulation in such a form as to indicate the amount of time and energy expended upon it. A remedy for a nuisance is sometimes speedily obtained when the owner is informed of it verbally; in other cases the desired result is only obtained after verbal communications, informal notices, reminders and letters have been sent by the Inspectors and by the Medical Officer of Health; the last resort is to report the matter to the Health Committee so that formal notices may be served by the Council, calling upon the responsible party to abate the nuisance (or carry out the necessary repairs in the case of housing defects). Under Section 28 of the Housing and Town Planning Act, 1919, if any owner fails to comply with a statutory notice the Corporation may, under certain conditions, carry out the work and recover the cost from the owner, and this procedure has been adopted during the year in some cases.

A statement of the number of occasions on which it has been necessary for the Council to serve statutory notices is not in itself an indication of the amount of work carried out by the department, for the smarter a sanitary inspector may be, the less often will it be necessary to have resort to the service of statutory notices, the desired results being obtained by persuasion only.

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 ...	100
" Sink Pipes ...	15
" Syphon Traps ...	16
" Basement Drains ...	20
" Yard Drains ...	15
" Urinal Drains ...	...
" Water Closets, Drains, and Soil Pipes ...	59
" Area Drains ...	12
" Sink Drains ...	...
Made-up Sink Pipes and Drains ..	61
" Bath and Lavatory Waste Pipes ...	21
" Basement Drains ...	17
" Water Closets ...	37
" Yard Drains ...	11
" Urinal Drains ...	...
" Gullies ...	39
" Private Street Drains ...	...
" Intercepting Traps ...	16
Untrapped Basement Drains ...	...
" Sink Waste Pipes and Drains ...	6
" Area Drains ...	...
" Yard Drains ...	3
Drains not efficiently trapped :—	
Sink Drains ...	2
Sink Drains and Pipes requiring Disconnecting ...	21
Defective Fallpipe Drains ...	14
" Fallpipes ...	63
" Spouting ...	87
" Roofing ...	59
Broken Pot and Iron Traps ...	...
Insufficient supply of water to Closets ...	...
Nuisances from Water in Cellar ...	38
" Want of Drains ...	...
" Swine ...	1
" Animals ...	5
Houses Overcrowded ...	4
" requiring Limewashing ...	9
Accumulations of Offensive Matter ...	17
Privies requiring Limewashing ...	...
Want of Water Supply... ..	9
Insufficient Privy Accommodation ...	2
Offensive Ashpits and Privies ...	47
" Goux Closets ...	9
" Ashes tubs ...	...
Doors off Closets and Ashes tub Places ...	40
Polluted Drinking Water ...	10
Dilapidated Closets and Ashes tub Places ...	28
Ashpits requiring reconstruction ...	8
Goux, etc. Closets to convert to Water Closets ...	10
Privies to convert to Goux Closets ...	20
Offensive Street Gullies ...	7
Damp House Walls ...	11
Insufficient Ventilation ...	11
Structural Defects ...	119
Miscellaneous ...	143

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 (including smoke abatement)	9
„ Housing Acts	12
„ Local Acts	9
Total	30

Furnished Rooms and Houses Let in Lodgings.

There are now 209 on the register. To these, 321 visits were paid by the Inspectors. The following insanitary conditions were reported :—

Dirty conditions	11
Overcrowding	3
Closets without doors	3

At the end of 1922 certain insanitary conditions were outstanding in connection with a block of furnished rooms against the owner of which legal proceedings had been successfully instituted. In addition to a substantial penalty, a continuing daily penalty, until the satisfactory completion of the work, was inflicted. This proved a useful lever in securing long-delayed improvements in a property which had caused a good deal of trouble in past years.

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 co-operate whenever it is necessary. Inspector Teal supervises the cowsheds in his own district, a considerable portion of which is rural; Mr. Clinch gives occasional help with meat inspection.

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

Dairies, Cowsheds and Milkshops.

The Milk and Dairies (Amendment) Act, 1922, necessitated separate registers of retail purveyors and wholesale traders and producers being kept. In order to obtain this information it was necessary to circularise all persons on our register to classify them. This has entailed a great amount of work which cannot be specified in detail.

It was found that on account of there being no obligation on the part of purveyors to notify the authorities of discontinuing business, a large number of changes had and are continually taking place, making it difficult to keep our registers up-to-date.

A large number of the retail purveyors have farms outside the Borough, and we have to acknowledge the assistance of officials of outside authorities in compiling our records.

All milkshops and the premises of retailers, within the Borough, have been visited under the new milk order to note if premises and conditions were suitable. One application for registration was refused by the Committee, while several persons had it made clear to them that it would be useless to apply for registration under their existing conditions.

The register has now been entirely revised and brought up-to-date, and transferred to a card record system. A valuable reorganisation has thus taken place. The following Table shows the number on the register :—

Retailers :—

Milkshops	...	...	...	...	24
Other Retailers	...	...	...	...	154
Retailers from outside the Borough	...	...	...	...	41
Wholesale Producers	...	...	...	...	96
Total					315

The examination of cattle was again interrupted and suspended for a period of three months, on account of the prevalence of Foot and Mouth Disease (four outbreaks). This suspension was most unfortunate, as it occurred at a period of the year when the cattle were housed, and it interfered considerably with the examination of cattle and the inspection of premises. We have had a full twelve months experience of the Milk and Dairies (Amendment) Act, 1922. It was intended to make a complete survey of the whole of the dairies and cowsheds, but the work has been held up on account of the recurrent outbreaks of Foot and Mouth Disease.

It will be recollected that the Amendment Act was an agreed measure between the Government and the National Farmers' Union to obtain a cleaner supply of milk, free from disease. I have not been able to note any great improvement, voluntarily, as a result of the Act. Even with such a simple process of cleansing as limewashing, there are a few who try to evade the second application, or to do it in such a perfunctory manner as to show that it would not be done unless there was some supervision.

Some of the vehicles used for the distribution of milk are totally unsuitable for the purpose.

There is a tendency on the part of some farmers to keep more cows than they have accommodation for, and to keep a cow in a stable or some unsuitable outside building.

Prior to 1914, most of the town's milk supply was produced within the Borough, whereas now a large percentage—I should estimate about 60 per cent.—is produced outside the area of the Local Authority. Take the district of Shibden Valley; at the present time there are only five producers of milk, whereas formerly a large number of dairy cattle were kept. This is not satisfactory, as the number of cows under close supervision become fewer; further, structural alterations had been made to some cowsheds, now discontinued, to make them comply with the regulations with the result the improvements have been lost to the community. During the past year 37 samples of milk were taken from sources outside the Borough; of these, 4 were reported as containing tubercle bacilli, giving a percentage of 10.8.

These figures must not be taken as representing an ordinary average, as special care was taken in the selection of the samples from districts, and the suspicions proved to be well founded.

These reports were followed up with the result that in each case, with the exception of one, I was able to find the offending cow. At one farm, two cows were found to be affected with tuberculosis of the udder.

The total number of cows found to be suffering from tuberculosis of the udder was 6 ; so far as I could ascertain, each cow was slaughtered.

A journal stated recently "A man may not sell milk that is deficient in fat, etc., and he is liable to severe punishment if he sells milk with a proportion of added water, no matter how pure the water may be," but how many convictions does one read of for failing to report tuberculosis of the udder? Practically none, showing the futility of depending on voluntary notification.

The milk, when consumed by children, causes lifelong suffering, even if it does not cause death at an early age.

Milk (Special Designation) Order, 1922.

Under this heading is classified :—

Certified.
Grade A (Tuberculin tested).
Grade A.
Pasteurised.

This Act came into operation in January, 1923, but there has been no application for licences locally.

The following is an official list of milk licences in operation in England and Wales at the end of each of the years 1920 to 1923 inclusive.

	1920	1921	1922	1923
<i>Certified :</i>				
Producers ...	9	23	41	55
Shops ...	10	49	170	598
<i>Grade A (Tuberculin tested) :</i>				
Producers ...	11	15	22	46
Bottling establishments and shops	8	11	17	118
<i>Grade A :</i>				
Producers ...	—	—	—	50
Bottling estab. ...	—	—	—	24
Shops ...	—	—	—	115
<i>Pasteurised :</i>				
Pasteurising estab. ...	—	—	—	57
Shops ...	—	—	—	107

NOTES.—Up to the end of 1922 the special designations were Grade A (Certified) and Grade A. The conditions applying to these designations were nearly the same as those applying to Certified, and Grade A Tuberculin Tested respectively.

The licences whose numbers are marked by an asterisk were numbers issued by Local Authorities, and the numbers given may possibly not be quite complete.

It is to be regretted that so important a town as Halifax is not represented at all in the above list.

So far as the production of clean milk is concerned it has been demonstrated that palatial cowsheds are not essential; that success depends on method. Apart from strict personal cleanliness, a few things are indispensable:

Steam.

Suitable milking cans.

A good dairy with cooler.

Clean cows.

Adequate labour.

A great improvement could be made locally if farmers would adopt a better milking can, of which there are a number on the market. As I stated in my Annual Report for 1910: "the bacterial count is the mirror reflecting the conditions under which the milk is collected," and suggested that a milking can with a convex flange would be better than the concave one in use, which allows dirt and hair to collect.

Coolers. There are a number of coolers in use at the present time, but in this case the public require educating to the fact that in well-cooled milk the fat does not rise to the surface, as in milk not cooled, consequently does not give a good cream.

Reconstruction. No structural alterations were made to any of the cowsheds during the past year. There are some cowsheds which require improvement, but have been left in abeyance on account of the high cost of building material.

In addition to the above duties I have attended and examined the horses of the Corporation, also the duties of the Veterinary Inspector under the Contagious Diseases of Animals' Acts, which includes the attendance at the Cattle Market.

In these duties I have often been called to examine animals which have died suddenly, and the lack of facilities for enabling me to satisfy myself, by microscopical examination, that the disease is not Anthrax, is a great handicap, not to say risk.

I am greatly in need of a room which can be used as an office and laboratory combined, having had no proper accommodation since the Health Department premises were reduced to their present unreasonable dimensions in 1920.

Slaughterhouses.

The question of improving conditions at the slaughterhouse has been seriously considered during the year, with the result that the Council has decided to reconstruct them on the same site.

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.
260	20	1,152	156

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

Description of Premises				Number of Visits
Public Slaughterhouses	...	...	...	912
Private Slaughterhouses	...	...	...	56
Borough Market	...	...	...	322
Wholesale Market	...	...	...	307
Fasting Sheds...	...	...	...	209
Potted Meat Houses	...	...	...	125
Tripe Boiling Houses	...	...	...	64
Butchers' Shops	...	...	...	1952
Cowsheds	...	...	...	377
Other Visits	...	...	...	144
Total				4,468

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 }	8813	2401	19249	5862	lbs.	36325
Do. condemned.. }	32	9	12	46	...	99
Number Condemned on account of }	25	...	...	25	6280	50
Tuberculosis ... }						
Weight of those condemned in lbs }	16440	480	495	4094	7324	28833

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. 23416
Total Amount of Offals Destroyed	7324
Total Amount of Meat Destroyed on account of Tuberculosis	17027
Total Amount of Offals Destroyed on account of Tuberculosis	6280
Total Amount of Meat Destroyed from other causes	6389
Total Amount of Offals Destroyed from other causes	1044
Total Meat and Offals Destroyed ...	30740

Kinds of Food Destroyed	Quantity in lbs.
32 Carcases of Beef	16440
Beef not in Carcase	1076
10 Carcases of Veal	480
12 Carcases of Mutton and Lamb	495
Mutton other than Carcases	4
46 Carcases of Pork	4094
Pork not in Carcase	827
57 Rabbits	81
Fish	4226
Fruit and Vegetables	8220
Canned Provisions	498
Offal	7324
Total Weight	43765

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 Knacker's Yard ...	1
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. Clinch, Chief Smoke Inspector, reports as follows :
I respectfully submit my report on the work of the Department in connection with smoke abatement during the year.

Following my appointment as Chief Smoke Inspector, at the end of 1922, an entirely new procedure was adopted in dealing with "dirty chimneys." In former years, routine

observations were taken at intervals, and the owners of chimneys found to emit black smoke for a greater time than the permissible limit, were served with Statutory Notices and prosecuted in the event of non-compliance, this being in accordance with the provisions of the Public Health Act.

The present method, and, I believe Halifax to be unique in this respect, is to provide owners of boiler plants with technical advice, prove to them the economy of smokeless combustion, and by so doing obtain their co-operation, only using the legal process as a last resource.

Having located the offending chimneys, by the reports of my colleagues or otherwise, I have spent considerable time and trouble in careful inspections of the boiler plants concerned, with a study of the fuel and methods of firing in use, in order to locate the cause of faulty combustion. Having found the cause of the smoke by this means, I have interviewed the owners or their representatives and carefully explained to them the reason why, at the same time suggesting a remedy, together with the probable economy of fuel to be expected as a result of improved methods. The results have exceeded my most optimistic anticipations, and I foresee the time when every manufacturer in Halifax will be his own "Smoke Inspector."

It is not suggested that this form of highly technical work is the "duty" of a Health Department, but I submit that by assisting the owners in a specialised and generally neglected branch of their business, more has been accomplished in one year than by twenty years of reliance on legal procedure only, and I now feel that my years of study of the subject to qualify as a Smoke Inspector have not been in vain.

A pleasing feature has been the change of attitude of the owners since the advantages of a clean atmosphere were made apparent by the coal strike. I have frequently been met by the remark "Yes! we agree that smoke should be stopped, but can it be done?" At the initiation of the procedure outlined above, I found that engineering proposals emanating from the Health Department, were, and perhaps naturally so, regarded with considerable suspicion, but as a result of patient explanation of the principles involved, confidence was established, and later, as it became possible to quote actual figures of economical results from cases dealt with, which could easily be verified, and the plants visited, the work became easier, until at

present it is often found that owners are pleased to know that their boiler plants are under supervision, a remarkable contrast to the hostility of former years.

With regard to the men, their co-operation and interest was secured by means of the lectures I delivered at their Club during 1922, and in every-day practice, by treating them as human beings gifted with intelligence. I find that time is well spent in teaching the boiler attendant the essentials of combustion. His help is essential, and if his interest is aroused, and he is prompted to ask questions, his assistance is assured.

As steam power and heating must form a substantial proportion of the cost of production in this district, it is surprising that firms should be so careless of the way in which their coal is used. They appear to cheerfully foot a coal bill amounting probably to thousands of pounds per annum, and omit to ask their engineer the two vital questions :—

1. What is the calorific value of the coal?
2. What proportion of its value is being recovered in the form of steam?

When investigations have been made at my instigation, owners have been shocked to find that as much as 30 per cent. of the heating value of the coal has been needlessly wasted through sheer carelessness or ignorance. A recent case showed an avoidable waste of £1,150 per annum from a two boiler plant.

Considering that it is probable that more coal is used in the boiler furnaces than in the houses of Halifax, it is obvious that our work is of more than local importance in that we are gradually ridding the town of its preventable smoke, and in addition, effecting considerable economy in the use of our greatest national asset—coal.

There can be no doubt that it is the black smoke of arrested combustion discharged from the factory chimney which is responsible for the dismal gloom of our industrial towns to-day, as evidenced by the change to a blue haze every Sunday, just when the domestic chimney is producing its maximum output.

It is to be regretted that I am only able to devote a small proportion of my time to this class of work, although I am to be congratulated on that fact that I enjoy the willing co-operation of my colleagues.

During the year, 290 observations of an hour's duration have been taken of factory chimneys by the Sanitary Inspectors, giving an average emission of dense black smoke of 1.9 minutes. This is higher than the actual average smoke emission in Halifax, as the concentration on offenders has made matters appear worse than they really are.

I have paid 284 visits to works in connection with the inspection of boilers, interviews with owners, etc. A census of boiler plants taken during the year shows that there are approximately 190 large steam boilers in use in the town, of the following types:—

Watertube.	Multitubular.	Lancashire.	Cornish.	Yorkshire.
11	6	151	19	3

consuming about 101,870 tons of fuel per annum. Of these, only two are fired with oil fuel, the remainder using coal, being fired by mechanical means to the extent of 75 per cent., and hand fired 25 per cent.

The average CO₂ reading was 11 per cent., but there are not yet sufficient indicating instruments in use to enable a reliable estimate to be formed of furnace efficiency.

I am of opinion that a wall type temperature indicator, showing the heat of the gases in the downtake of every boiler would be of greater assistance to the fireman than the combustion indicators at present in use, which only serve to warn the fireman of the presence of excess air in undue proportion, telling him nothing about insufficient air, and in any case only indicating what was happening in the furnace two minutes or more previously.

The fireman understands that his efforts are all to the production of heat. With an indicator showing what heat he was actually producing, he would take more interest in the achievement of a high record, on the principle of more heat, more steam, and would instinctively nurse his fires accordingly.

The following particulars of a few of the cases dealt with during the year, showing the faults discovered, prove that owners of boiler plants are as much in need of instruction as the men, in spite of the fact that they are interested financially.

A. Cause of smoke—Insufficient draught. A Lancashire boiler, hand - fired, working with dampers down through underloading.

Action taken:—Grate area reduced by 30 per cent. Sprinkler stokers fitted working under natural draught.

- B. Cause of smoke—Careless firing—heavy charging, at long intervals.
Action taken :—Machine stokers fitted with forced draught.
- C. Cause of smoke—Insufficient draught (Induced) caused by defective brickwork of flues and economiser walls.
Action taken :—Brickwork repaired. A new chimney is to be erected to replace induced draught plant.
- D. Cause of smoke—Machine feed on fixed grate, using a coking coal. Dense smoke emitted when pyramid fires disturbed.
Action taken :—Coal changed to a free burning variety as a temporary measure. Moving grate to be fitted later. (This firm ran a 1¼ days' trial, at my request, to prove the economy of suitable coal even at a greater cost per ton, at the conclusion of which I was warmly thanked for my action.)
- E. Cause of smoke—Grit nuisance from over-powerful induced draught. Smoke caused by over-loading ; hand-firing on mechanical furnaces during rush periods.
Action taken :—New large chimney erected to replace induced draught. Machines overhauled, and stokers forbidden to fire by hand.
- F. Cause of smoke—(A heavy loco. in railway). Heavy firing whilst stationary in goods yard.
Action taken :—Warned driver and fireman personally, no further action required.
- G. Cause of smoke—(Vertical boiler emitting 23 minutes black smoke per hour). Insufficient combustion space.
Action taken :—Fuel changed from coal to 2in. gas coke.
- H. Cause of smoke—Insufficient draught due to defective damper slots and dilapidated brickwork of flues and settings.
Action taken :—All defects remedied, and coking system taught to stoker.
- I. Cause of smoke—Insufficient draught, and chilling of gases by water tubes.
Action taken :—Grate area reduced, and midfeather walls of firebrick erected to steady the boiler.
- J. Cause of smoke—Pyramid fires caused by revolving vane feed on fixed grate, using a coking coal.
Action taken :—Coal changed to a free burning coal.

- K. Cause of smoke—Insufficient draught ; defective brick-work.
Action taken :—Settings repaired.
- L. Cause of smoke—Unsuitable coal on a short grate.
Action taken :—Coal changed..
- M. Cause of smoke—Machine firing on fixed grates (four large boilers).
Action taken :—Coal changed and smoke reduced to legal limit. (This plant could be more economically worked with moving bars ; interviews in progress).
- N. Cause of smoke—Overloading, insufficient draught, and no economiser.
Action taken :—Statutory Notice in force at year end. Voluntary action unlikely in this case.
- O. Cause of smoke—Mechanically restricted draught to obtain high CO₂ readings.
Action taken :—Statutory Notice. New boilers, with larger combustion spaces now being installed. Boiler Superintendent carefully watching stokers in the meantime, and has reduced smoke to the legal limit.

Other cases were being dealt with at the year end, and will be included in the 1924 report.

In every instance except one, economy of fuel has resulted varying from one to eight tons of coal per week per boiler, the exception being due to failure to adopt the type of fire-grate advised, but in this case there is no longer any nuisance from smoke.

At the time this report was being written, a series of "Hints to Boiler Attendants" in the form of ten "Don'ts," was being printed and mounted on cards for distribution to the boiler owners in the town, by the Health Committee.

Sale of Food and Drugs Acts, etc.

The Inspector under the Food and Drugs Acts is Mr. J. G. Walshaw, who carries out these duties for the whole town, in addition to the usual sanitary work in his own district. Mr. Lea, the Borough Analyst, and your Medical Officer, are in frequent consultation as to the types of foodstuffs which should be followed up, and Mr. Walshaw arranges for the collection of samples—a procedure which is complicated by many curious legal points. In addition, Mr. Walshaw, aided by the other inspectors, is constantly on the look-out for irregularities in the milk trade, and procuring samples for analysis.

Early in the year your Medical Officer was able to be of some little assistance in an investigation into the accuracy of the dispensing of National Health Insurance prescriptions by chemists. The results of analysis were reported upon by the Borough Analyst to the Insurance Committee, and on the whole they were satisfactory to that Committee.

The details of the work carried out under the Sale of Food and Drugs Acts, etc., is set out in the report made by Mr. Lea, the Borough Analyst, as follows :—

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 260 samples taken under the above Acts and Regulations during the year, or 2.62 per thousand head of population ; of this number, fourteen were adulterated or unsatisfactory.

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

Article.	Total Samples Analysed	Genuine	Adulterated or Unsatis- factory	% Adulterated
New Milk	146	135	11	7.5
Margarine	1	1	...	...
Butter	13	10	3	23.0
Peas and Beans	2	2	...	...
Ground Ginger	4	4	...	...
Beef Suet	2	2	...	...
Baking Powder	9	9	...	...
Pepper	6	6	...	...
Condensed Milk	2	2	...	...
Ground Rice	2	2	...	...
Cream	14	14	...	...
Meat Pies	1	1	...	...
Jam	5	5	...	...
Vinegar	5	5	...	...
Glycerine and Borax	2	2	...	...
Beer	18	18	...	...
Borax	5	5	...	...
Cream of Tartar	6	6	...	...
Sponge Buns	6	6	...	...
Lemon Kali	1	1	...	...
Olive Oil	9	9	...	...
Skimmed Milk	1	1	...	...
	260	246	14	5.4

Although the percentage of adulterated or unsatisfactory samples is slightly higher than last year, it is far below the average of the five preceding years. It must also be mentioned that in all cases of suspected or found adulteration, further samples are taken from the same source. The actual adulteration is therefore less than is apparent from the percentage figures.

As will be seen from the above Table, the sophisticated samples are confined this year to butter and milk alone. Six samples of butter were taken informally and two were found to contain water in excess of the 16% allowed by the Butter and Margarine Act, 1907. On taking formal samples a few days later, the moisture content in both was found to be within the limit. Five other samples were taken during the year, four of which were genuine; the fifth, which contained 18% of water, was condemned, but as the vendor had a label in view of the purchaser stating that the butter contained 16-20% of water, no legal action was taken in the matter. This, I consider, was a mistake on two grounds. First, that an intending purchaser might

not see the label, and secondly, the law allows no moisture above the 16% in any article which can be sold as butter. Milk blended butters, which are allowed by law to contain up to 24% of moisture, have to be sold under some proprietary name, approved by the Ministry of Agriculture and Fisheries.

The standard of average milk sold in the Borough was excellent, as the following figures show:—

58.9% had Total Solids greater than 12.5%

26.8% had Total Solids between 12.0 and 12.5%

11.6% had Total Solids between 11.5 and 12.0%

while only 2.7% had Total Solids less than 11.5%

This is conclusive evidence that good milks can be, and are produced in Halifax, and taking these figures into consideration, a warning letter from your Committee to those gentlemen who sell milk just below the 11.5 limit, is, I consider, inadequate. By law a man is considered guilty of selling milk to the prejudice of the purchaser if his milk falls below a certain standard of quality fixed by the Government. Why then should the Local Authorities fix a still lower standard, and say that if the milk falls between their standard and the Government standard, a warning letter is sufficient? It encourages a man to doctor his milk down to the Government standard, and he has no fear if he falls just below it.

Only one case of flagrant milk adulteration was detected during the year. Samples were taken from the farmer in the early part of the year, and the milk was found to be of poor quality—one sample, in fact, was adulterated by the addition of 10% of added water. Further samples were taken from the farmer and from two retailers whom he supplied, but no definite proceedings could be taken. Finally the inspectors sampled the milk from three churns at the farm. Two were found to be milks of good quality, while the third was deficient in fat to the extent of 20%, and also contained added water to the extent of 10%. That the cows were giving good milk, was proved by the analysis of the milk in the other two churns, and by the fact that the 'appeal to cow' samples taken the next day were milks of excellent quality. The farmer was charged with the offence, and was fined £20 and £1 11s. 6d. costs, the maximum penalty for a first offence, at the Borough Police Court.

In all other cases of the sale of milk, which analysed, proved to be under the standards laid down by the Sale of Milk Regulations, 1901, a warning letter to the vendor was considered by your Committee to be sufficient.

During the year, important regulations were made by the Ministry of Health, in respect to selling condensed milk. Manufacturers of condensed milk have now to declare, by a label affixed to the tin or receptacle containing the milk, the type of milk, *i.e.*, sweetened or unsweetened, full cream or skimmed, and also declare to what volume of "average milk" the contents of the tin are equivalent. In the case of skimmed or partially skimmed condensed milk, the label has also to bear the words "Unfit for Babies." This latter is perhaps the most important part of the Regulations. It is interesting to note that the average milk referred to above, is one which contains at least 12.4% of milk solids, including not less than 3.6% of milk fat. A minimum limit of 9% of fat is fixed for Full Cream Condensed Milks, and the minimum limit for Total Solids is also fixed.

If such standards were fixed for other commodities, the administrators of the Food and Drugs Acts would be better able to protect the public from fraud.

SHOPS INSPECTOR'S ANNUAL REPORT, 1923.

Mr. T. Fearnley, Shops Inspector, presents the following report of his work:—

Half-holiday Closing Visits	...	...	622
Assistants' Half-holiday Visits	...	...	611
Children's Bye-Law	..	...	989
Registrative & Administrative Visits	...	...	826
Special	..	...	400
Fabrics (Misdescription) Act	..	...	260
Shops Early Closing	..	...	621
Rats and Mice (Destruction) Act Visits	...	...	683
Shops without Assistants Half-holiday Notice (Sec. 1)			70
Do. Young Persons'	..	(Sec. 2)	29
Do. Mixed Business	..	(Sec. 10)	102
Do. Half-holiday Closing Notice		(Sec. 4)	138
Do. Seats for Female Assistants		(Sec. 3)	2
Contravention of Mealtimes		(Sec. 1, Sub. 5)	17
Do Assistants Half-holiday		(Sec. 1, Sub. 1)	18
Do. Half-holiday Closing		(Sec. 4)	92
Do Early Closing Act or Orders		(Sec. 5)	157
Do. Young Persons' Hours		(1920 Act) (Sec. 2)	0
Do. Children's Bye-Laws	...	...	83
Warning Notices sent...	...	...	28

Prosecutions (2):

- (1) For selling tea and boot polish after 8 p.m. at 51, St. James' Road, the occupier was fined £1 and 6s. 6d. costs, at the Borough Court, on the 23rd of January, 1923.
- (2) For keeping his shop open until 8-20 p.m. on the 17th November, 1923, the occupier of 32, Borough Market, butcher, was fined £1 at the Borough Court, on the 8th of January, 1924.

The following Half-Holiday and Early Closing Orders have become operative during the year:—

- (1) *Hairdressers and Barbers Closing Order and Half-Holiday Closing Order*, 1922 (became operative 2nd February).

The Closing Hours are as follows:—

Mon.	Tues.	Wed.	Thurs.	Friday.	Saturday.
7 p.m.	7 p.m.	8 p.m.	1 p.m.	8 p.m.	8 p.m.

Saturday Half-holiday may be substituted for Thursday, and the closing hour on Thursday would be 8 p.m.

- (2) *Retail Butchers and Meat Purveyors Closing Order*, 1923 (became operative 8th September).

The Closing Hours are as follows:—

Mon.	Tues.	Wed.	Thurs.	Friday.	Saturday.
7 p.m.	7 p.m.	7 p.m.	1 p.m.	8 p.m.	8 p.m.

Saturday Half-holiday may be substituted for Thursday, and the closing hour on Thursday would be 8 p.m.

Rats and Mice (Destruction) Act.

The number of Rat-infested premises (1923) are: ..	99
Premises reported clear after Rat Week	40
The number of Rat tails brought to Health Dept....	1,517
The number of Rats killed (in addition to above)...	323

Traps, Cats, Dogs and Ferrets have been more extensively used than in previous years, this being particularly noticeable in the centre of the town. These efforts are, I believe, doing more than "wiping out the annual increase." They are reducing the rat population.

Housing.

Number of new houses erected during the year ...	83
(a) Total	
(b) With State Assistance under the Housing Acts, 1919 or 1923:—	
(i) By the Local Authority...	50
(ii) By other bodies or persons ...	2

UNFIT DWELLING HOUSES.

1.—Inspection.

1. Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts) ...	974
2. Number of dwellinghouses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	187
3. Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	None
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	66

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	711
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3.—Action under Statutory Powers.

A. Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

1. Number of dwellinghouses in respect of which notices were served requiring repairs	30
2. Number of dwellinghouses which were rendered fit—	
(a) by owners	9*
(b) by Local Authority in default of owners	2
3. Number of dwellinghouses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	None

B. Proceedings under Public Health Acts.

1. Number of dwellinghouses in respect of which notices were served requiring defects to be remedied...	39
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2. Number of dwellinghouses in which defects were remedied—	
(a) by owners	50†
(b) by Local Authority in default of owners	24
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	None
2. Number of dwellinghouses in respect of which closing Orders were made	None
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

*The defects outstanding at the end of year relate chiefly to one large block of property about which negotiations were in progress.

†These figures include a number reported in previous year and remedied in 1923.

UNHEALTHY AREA.

There are several groups of property in the town in which the housing conditions are really bad, though it may be said that Halifax, on the whole, compares well with some industrial towns in this respect. It is to be regretted that in the past, in Halifax, many dwellings were erected so close together that with our modern standards we now regard them as overcrowded on space. The majority of such houses are in very good tenantable condition and must be allowed to remain. The housing shortage places very great difficulties in the way of demolition of insanitary areas, but it is necessary to make plans for future action. The area of the town which appears to call for early attention is that known as Crossfields. A very thorough survey of the housing conditions was made during the past year. A census of the inhabitants in the locality and schedules of the accommodation and sanitary defects were compiled. The vital statistics of the area were worked out, and it became clear that this area must be regarded as an unhealthy area, to be dealt with as a "Part I Scheme" under the Housing Acts, 1890-1919. By the end of the year the preliminary enquiry was completed, and the "Official Representation" was made to the Health Committee on January 23rd, 1924.

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 :—

Tramwaymen—

Applicants for employment or promotion ... 53

Return to work after sickness (other than cases certified by usual medical attendants) ... 14

Gasworkers—

Special examinations 1

Propaganda Work.

Health Week.

The Committee once more promoted a Health Week, the meetings being held simultaneously with those held in other towns, as suggested by the Royal Sanitary Institute. It is believed that by focussing public attention upon health (not disease) and by drawing attention to the work done by the Municipality to keep the public healthy, a certain amount of good may result. The meetings were well attended, and thanks to the excellent reports given in the local press, a wide publicity was obtained. The meeting of the Rotary Club is included in the following list, although it was not a public meeting, because the Club definitely intended it to be a portion of the Health Week celebrations :—

Sunday afternoon, October 7th. Square Church Brotherhood. J. Basil Hall, Esq., F.R.C.S., Bradford, President Elect, British Medical Association. Subject :—"Prevention is Better than Cure." Chairman, The Mayor (Ald. A. W. Longbottom).

Monday afternoon, October 8th. Sion Schoolroom. Meeting for Women, arranged by Beacon Club. Speaker, Dr. Alice Latchmore, Assistant Medical Officer of Health.

Wednesday, October 10th. Halifax Rotary Club. Speaker, Dr. W. Allen Daley, M.O.H., Blackburn, President Blackburn Rotary Club. Subject :—"Improvement in the Public Health as a Business Proposition."

Thursday, October 11th, in the Town Hall. Lantern Lecture by Dr. Meredith Young, County M.O.H. for Cheshire. "What the Municipality does to keep us Healthy." Chairman, The Mayor.

Friday, October 12th, in the Town Hall. Arranged by the Halifax Council for Social Welfare. Speaker, Dr. A. E. L. Wear, C.M.G., Chief School Medical Officer, Leeds. Subject:—The Care of Cripples in Yorkshire." Chairman, The Mayor.

In addition to the meetings held during Health Week, a limited amount of propaganda work was done by the Staff of the Department during the year by means of popular lectures and addresses.

The Health Committee contributed substantially to the Halifax Branch of the National Council for Combatting Venereal Disease, in support of a series of meetings held in November. Some remarkable cinematograph films were shown, and the meetings were all addressed by Mr. T. Bowen Partington, a very able lecturer from the N.C.C.V.D., except one that was addressed by Dr. Latchmore.

Some of the meetings were very well attended, especially the one at the Picture House on the Sunday evening, to which some hundreds of people were unable to gain admission.

Probably all interested in such work have at times wondered whether lectures on these subjects reached the persons most in need of them, and whether any practical good resulted. It can certainly be said of the lectures held in Halifax that they were attended by audiences drawn from many classes of society, while the striking films displayed, and the lectures which accompanied them must have made a profound impression, from which nothing but good can result.

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 20.

CLINICS AND TREATMENT CENTRES—

The following are all provided by the Halifax Corporation :

Maternity and Child Welfare Centres (3) see page 23.

School Clinic, Horton Street—

Medical Inspection—Two half-days per week.

Minor Ailments—Six half-days per week.

Dental—Four half-days per week.

Ophthalmic—Two half-days per week.

Remedial Exercises—Two half-days per week.

Tuberculosis Dispensary, 8, Clare Road, see page 16.

Venereal Diseases Clinic, Royal Halifax Infirmary, see p. 26.

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—None subsidised by Corporation during the year.

Hospital for Children—None subsidised by Corporation, except that the Education Committee has an arrangement with the Royal Halifax Infirmary with reference to operations on tonsils and adenoids.

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 (reduced from 72 by improved spacing of beds).

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 Brighthouse 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 26.

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, 1923, to December 31st, 1923.

By E. GREEN, LIBRARIAN.

LATITUDE OF STATION = 53° 43' N.

LONGITUDE = 1° 52' W.

HEIGHT ABOVE SEA LEVEL = 625 FEET.

1923.	Month.	Pressure of Atmosphere in Month.		Temperature of Air in Month.						Mean Temperature.		Vapour.		Mean degree of saturation 100.	Mean Reading of Thermometer.		Wind.										Mean amount of Cloud.	Rain.		REMARKS.		
		Mean at 32° F. and Sea Level.	Range.	Highest.	Lowest.	Mean.			(Adopted.)	Air.	Dew Point.	Elastic Force.	In a cubic foot of Air.		Maximum	Minimum	Estimated Strength.	Relative proportion of										Mean amount of Cloud.	No. of Days it fell.		Amount Collected.	
						Of all Highest.	Of all Lowest.	Daily Range.										N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.						
in.	in.	°	°	°	°	°	°	°	°	in.	gr.	gr.	gr.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	in.			
January	...	30.080	1.128	52.0	30.0	21.2	46.7	37.1	9.6	42.2	34.8	202	2.4	6	75	535.3	56.6	33.5	2.7	7	0	0	1	0	4	8	27	0	6.6	17	2.83	The observations have been reduced to mean values by Glaisher's Barometrical & Diurnal Range Tables, and the Hygrometrical results have been deduced from the seventh edition of Hygrometrical Tables, after corrections for Index errors of the Instruments employed.
February	...	29.661	1.560	54.1	25.3	28.8	44.2	34.4	9.8	38.7	35.4	206	2.4	3	89	540.0	58.4	33.0	2.2	1	1	2	7	2	10	6	8	7	7.9	23	5.17	
March	...	29.997	1.208	64.2	32.5	31.7	48.9	36.3	12.6	41.0	36.1	212	2.5	3	88	538.7	74.1	34.0	2.0	0	10	7	6	2	9	3	2	0	6.3	15	1.84	
April	...	29.720	0.987	57.2	30.1	27.1	49.5	35.5	14.0	41.6	38.7	235	2.7	3	92	536.5	83.0	35.0	2.0	0	8	11	6	1	4	0	10	4	6.5	17	2.56	
May	...	29.892	1.116	69.1	33.1	36.0	51.6	38.3	13.3	44.7	39.0	238	2.8	5	81	533.1	92.0	36.2	2.3	9	4	0	0	0	4	4	18	1	6.1	17	3.43	
June	...	30.098	0.610	69.5	39.9	29.6	57.7	44.6	13.3	50.3	44.3	292	3.4	5	83	527.4	98.5	41.2	2.2	9	4	0	0	0	6	9	17	3	7.3	12	0.66	
July	...	29.909	0.936	83.9	48.1	35.8	67.8	52.9	14.9	61.2	55.0	433	4.8	9	79	514.3	105.9	46.9	2.0	2	1	0	0	0	9	21	7	7	6.0	15	3.82	
August	...	29.813	0.888	75.1	44.0	31.1	62.5	48.2	14.4	54.9	51.5	382	4.3	1	89	522.0	102.9	39.2	2.0	0	0	0	2	9	16	14	5	6.2	20	4.39		
September	...	29.855	1.094	68.4	40.3	28.1	57.9	45.6	12.3	51.7	45.9	310	3.5	9	80	524.6	97.1	35.2	2.0	0	0	0	0	0	15	16	10	4	6.3	19	3.14	
October	...	29.633	1.480	61.3	33.8	27.5	53.6	41.9	11.7	46.9	37.0	220	2.6	9	70	531.2	87.4	31.3	2.9	2	0	0	1	3	14	7	19	2	5.8	21	3.75	
November	...	29.717	1.252	55.6	24.7	30.9	43.5	32.2	11.3	37.6	31.6	176	2.0	4	80	541.0	60.0	20.9	2.3	17	5	0	0	0	7	3	9	5	5.2	23	5.54	
December	...	29.924	1.346	49.2	25.2	24.0	42.9	33.0	9.9	37.8	35.0	204	2.3	2	88	540.0	50.8	21.8	2.8	7	0	0	0	2	6	5	12	14	6.5	19	3.03	
Annual Means	...	29.858	1.132	54.9	33.8	29.3	52.2	40.0	12.2	45	42.0	259	3.0	5	83	533.7	80.5	34.0	2.3	4.6	2.7	1.6	1.6	1.0	8.0	8.0	12.6	4.3	6.4			

The Mean Monthly Readings of the Earth Thermometer, four feet below the surface, were as follows:—

January, 43° March, 42° May, 46° July, 54° September, 54° November, 46°
 February, 43° April, 44° June, 48° August, 55° October, 50° December, 42°

Highest Readings = 55° on July 32nd to Sept. 8th.

Lowest Readings = 41° on March 2nd and 3rd.

Rain fell on 218 days, and measured 40.16 inches

General Summary of Meteorological

LATITUDE 40°

Month	1	2	3	4	5	6	7	8	9	10	11	12	Annual Mean
January	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
February	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
March	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
April	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
May	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
June	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
July	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
August	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
September	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
October	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
November	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
December	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0

Annual Means 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0

Notes: The Mean Monthly Readings of the

January, 1871

February, 1871

Highest Readings - 55° on July 23rd

Rain fell on 218 days, and measured 40



