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BOROUGH OF CHATHAM

ANNUAL

REPORT

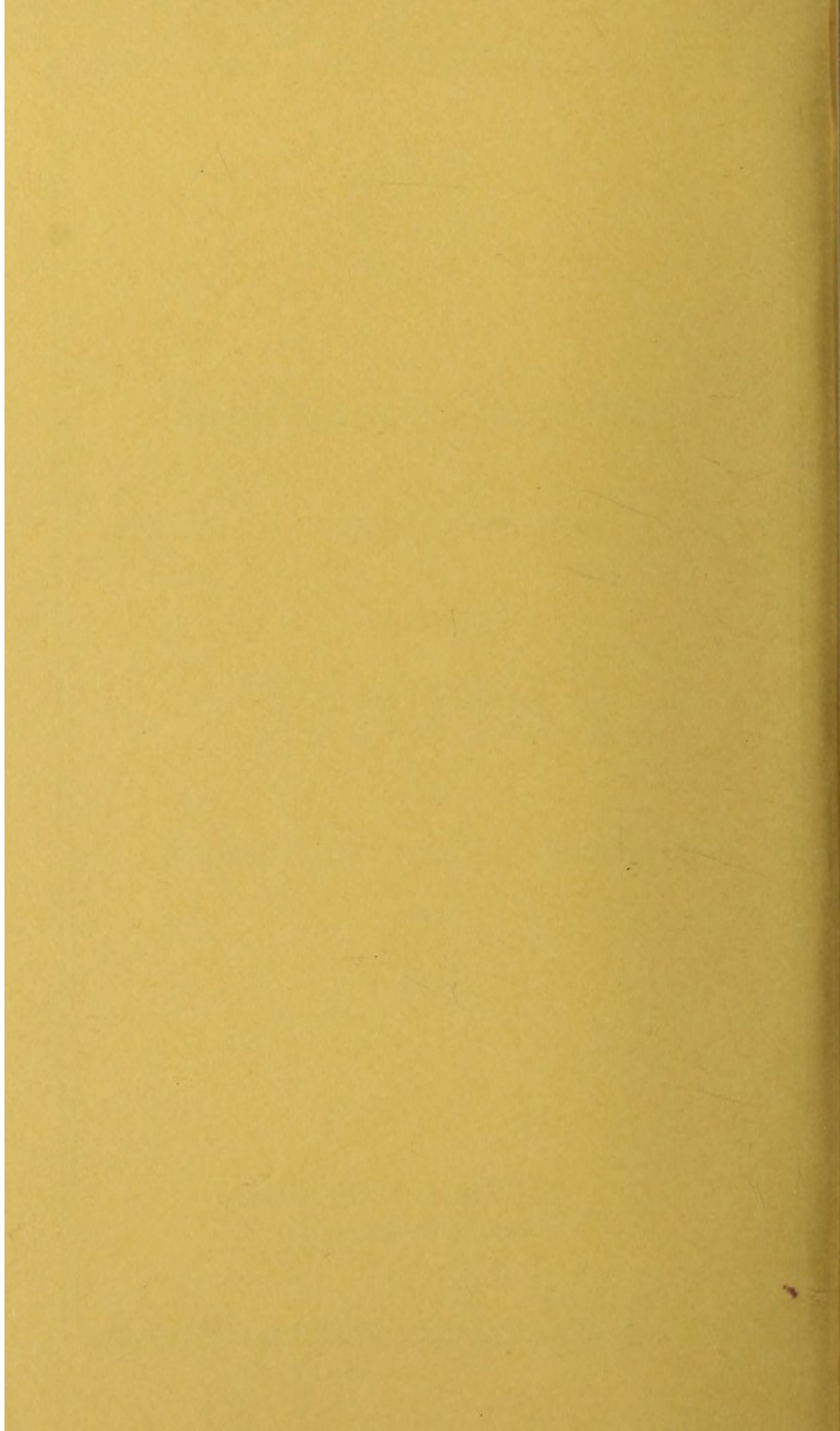
OF

Medical Officer of Health

FOR

1954

J. O. MURRAY, M.D., D.P.H.,
Medical Officer of Health





BOROUGH OF CHATHAM

ANNUAL

REPORT

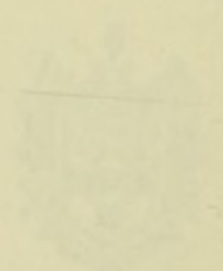
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J. O. MURRAY, M.D., D.P.H.,
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BOROUGH OF CHEATHAM

REPORT

Medical Officer of Health

FOR

1917

J. G. WICKHAM, M.D., D.P.H.

Medical Officer of Health

List of Members of the Chatham Council

as at 31st December, 1954

THE MAYOR (Alderman A. S. Price, J.P.)

THE DEPUTY MAYOR (Alderman G. W. Rhodes.)

Alderman F. H. Lawrence, J.P., O.B.E.

Alderman W. J. B. Bliss, J.P.

Alderman F. B. Semple, B.Sc.

Alderman A. G. C. Brown

Councillor W. G. Hogg.

Councillor G. W. Pagett, M.A., C.C.

Councillor P. J. Kelly.

Councillor D. D. Barker, M.B., B.Ch., B.A.O.

Councillor F. C. Manington.

Councillor F. B. Hodges.

Councillor T. T. Myles.

Councillor J. S. Thomas.

Councillor L. H. Thomas.

Councillor R. A. Warner.

Councillor Mrs. M. T. Cox.

Councillor R. L. W. Parsons.

Councillor J. C. Buck.

Councillor D. Walter.

Councillor T. H. Hill.

Councillor K. W. Osborne.

Councillor C. E. Harvey.

Councillor O. P. Baker.

Public Health Committee

This consists of the whole of the members of the Council.

CHAIRMAN : Alderman G. W. Rhodes.

DEPUTY CHAIRMAN : Councillor D. D. Barker, M.B., B.Ch., B.A.O.

Public Health Officers

Medical Officer of Health :

(Combined appointment with City of Rochester)

J. O. Murray, M.D., D.P.H.

Deputy Medical Officer of Health and Assistant Medical Officer Kent County Council :

(Combined appointment with City of Rochester)

R. G. Brennen, M.B., B.Ch., B.A.O., C.P.H., D.P.H.

Chief Sanitary Inspector :

Thomas Howard (a) (b)

Senior District Sanitary Inspector :

A. E. South (a) (b)

District Sanitary Inspectors :

H. Taylor (a) (b), R. W. Wright (a) (b)

Clerks :

Miss J. F. Coffey

O. Thomas

Miss A. Felton (resigned 20.7.54).

Miss S. M. Chapman (from 3.8.1954).

(a) Sanitary Inspector's Certificate.

(b) Meat Inspector's Certificate.

Borough of Chatham

PUBLIC HEALTH DEPARTMENT,
"ELM HOUSE",
15 NEW ROAD AVENUE,
CHATHAM.

To the Mayor, Aldermen and Councillors of the Borough of Chatham.

YOUR WORSHIP, MESDAMES AND GENTLEMEN,

I have the honour to submit my report for the year 1954.

BIRTH RATE, DEATH RATE, INFANTILE MORTALITY RATE

The Crude Birth Rate was 16.82 per 1,000 of the population, which is slightly higher than in 1952 and 1953.

The Crude Death Rate was 10.26 per 1,000 persons living. This is a slight increase on the figure for 1953 but a decrease compared with 1952. Sixty-four per cent of the 498 deaths occurred in persons aged 65 years or over. The causes of death are shown on page 19.

The Infant Mortality Rate of 20.83 per 1,000 live births continues to show the favourable trend of recent years. Seven of the 17 deaths occurred within 12 hours of birth. Prematurity was the registered cause of death in six infants.

INFECTIOUS DISEASES

With the exception of Dysentery and Food Poisoning, both of which produced an unusual number of cases, the incidence of infectious disease was not heavy and calls for no special comment.

DYSENTERY.—152 cases were notified, 68 of which related to children 5-10 years old. Sixty-seven per cent of the total infections occurred in children under 11 years of age. There were no deaths.

FOOD POISONING.—The increase in the number of cases of Food Poisoning was due to an outbreak in 13 schools in Rochester and Chatham, which were supplied with their midday meal from a central kitchen. There were 315 cases of which 118 were resident in Chatham. The total number of children on the school rolls was 3,735, of which about 1,430 had their midday meal in school. At the time of this incident there was no undue prevalence of this disease in the community or in any of the other local schools which received their meals from other sources. The outbreak occurred in the first week in July. Seventy per cent of those affected became ill on 3rd, 4th or 5th July. The majority of cases were mild. In many cases medical advice was not sought but some children were off school for several days.

Intensive investigations were carried out, including the bacteriological examination of some hundreds of specimens from patients, food and equipment. None of the recognized food poisoning germs were isolated but the incubation period and the symptoms were suggestive of a Salmonella infection.

TUBERCULOSIS (see tables on pages 29 and 30)

The outlook for the eradication of Tuberculosis is promising. During the war and immediate post-war years there was an increase in incidence and mortality from this disease, when the notification rate rose to over 2 per 1,000 persons and the death rate to about 1 per 1,000. The notification rate still remains higher than pre-war years but this is no doubt associated with improved methods of diagnosis and, in any case, it was much lower in the past five years than in the period 1940-1949. On the other hand, the death rate is about half of what it was in the period 1935-1939 and about one third of the death rate which prevailed during the war. This very considerable improvement in the mortality rate has resulted from earlier diagnosis and the greater efficacy of modern methods of treatment.

HOUSING

630 houses were completed during 1954, of which 474 were erected by the Council.

Demolition Orders were made on 12 dwellings.

Closing Orders were made in respect of certain rooms in 2 houses, and on the whole building in 10 dwellings.

Clearance Orders on 41 houses in 3 small areas were confirmed by the Minister (see page 36).

ATMOSPHERIC POLLUTION

Local Records of Air Pollution

In August, 1951, Rochester and Chatham Councils installed, jointly, Standard Deposit Gauges at All Saints' Hospital, Fort Pitt School and Strood Cemetery, in order to ascertain the type and degree of air pollution in the area. The deposits collected in each gauge are analysed at the end of each calendar month.

It is now possible to make a tentative estimate of the situation. It must be stressed, however, that the conclusions reached are not necessarily final and may be subject to amendment in the light of further investigations, but the indications are that locally, atmospheric pollution is becoming worse.

Types and Proportions of Pollution collected by the Gauges

The deposit gauges collect soluble and undissolved polluting matter which is measured and analysed. The insoluble matter is separated into ash, tar and non-tarry combustible matter and the soluble matter into chalk, sulphates and chlorides.

Although the gauge collects most types of pollution, the pollutants do not reach the gauges in the same relative proportions as they are emitted from chimneys and other sources. For example, most of the heavy ash is collected, whereas the lighter materials, such as smoke and gases which tend to hang for long periods in the air and drift downwind, do not by any means represent the amount which comes out of the chimneys. Indeed, if the sulphur gases were in the proportion to their weight emitted from chimneys, their deposits in the gauge would be about ten times that of the ash collected but, in fact, it is rarely more than double. The gauge

records will, however, reveal any increased emission of any of the different types of pollution.

The monthly analyses show variations which are due, partly to the rate and amount of the emissions, but mainly to meteorological conditions such as rainfall, wind velocity and direction, temperature and air turbulence. Some of the deposit found in the gauges may, thus, have come from areas some distance from the gauge and also from other towns.

The activity of the sulphur gases in the air is measured by means of a lead peroxide gauge. Provided climatic conditions are similar, the readings, whilst not indicating the amount of sulphur in the air, may be considered to be roughly proportional to the actual concentration of sulphur gases in the air.

Prime Pollutants

The chief types of polluting matter which originate from fuel consumption in fires and furnaces are smoke, ash, grit and sulphur gases, to which must be added oily smoke and dangerous gases such as carbon monoxide from petrol engines.

Locally, dust from cement factories in the Borough creates an additional source of pollution peculiar to this industry wherever it may be located. It can periodically create an intolerable nuisance, particularly with north-westerly winds.

Smoke

Smoke is visible evidence of fuel wastage through incomplete combustion. It consists of very minute particles of carbon and liquid tarry matter which remain suspended in the air for long periods with the result that the amount caught in the deposit gauges represents less than one quarter the amount emanating from local chimneys. Most of the suspended matter in the air consists of smoke.

Although domestic fires consume less than one quarter of the coal burned in Great Britain they produce half the smoke reaching the atmosphere. It is not generally realised that every hundred-weight of coal burned in the ordinary domestic hearth produces $2\frac{1}{2}$ lbs. of smoke.

Smoke occludes light and also ultra violet light, the latter having a particular beneficial effect on human health and plant life. It gets into the respiratory system and in combination with sulphur gases and moisture predisposes to bronchitis and other lung diseases and may have some association with lung cancer. It also produces the final murky coating to 'Smog' which is known to cause a considerable increase in the death rate.

Ash and Grit

Ash and grit consist of comparatively large particles which, unlike smoke, are deposited near their source. Ash is mostly mineral matter from fuel with very little wind-blown dust, whilst grit is, in the main, unburnt or partly burnt particles of fuel. This type of emission is much greater from electric generating stations, railway engines and industrial installations than from domestic sources. It is

increased when boiler installations use pulverized fuel with forced draught and can be very much reduced by the use of 'cleaned' coal which contains little or no extraneous matter.

Sulphur Gases

All solid fuel contains sulphur which, on combustion, is discharged into the air as sulphur dioxide. The combustion of 100 tons of coal emits about $2\frac{1}{2}$ tons of sulphur dioxide. This gas in the presence of moisture is transformed into sulphuric acid which corrodes buildings, fabrics, metals and other materials. Unfortunately, it is difficult and quite uneconomic to prevent such emissions, except in a few very large industrial undertakings such as electric generating stations.

There is evidence to suggest that although the sulphur gases in the air are not usually sufficiently concentrated to be harmful by themselves they can, when combined with smoke and moisture, have a deleterious effect on the respiratory system and there is evidence that sulphur gases can be fatal to man and animals when in combination with 'smog' conditions.

Cement Dust

To the public the emission of cement and other dusts is the most evident pollution in the area and, consequently, is the source of most complaints. It offends the eye and, occasionally, the nose. The housewife and motorist decry the dust deposit and there is no question that it is a serious amenity nuisance. There is no evidence however, that this dust, which is alkaline, causes any detriment to physical health, although it does result in a good deal of exasperation and vituperation.

Although various methods are used by the cement industry to minimise the nuisance, at the present time there is no known method of precipitation and collection of the dust at its source which will produce complete abatement.

Smoke and Fumes from Petrol and Diesel-Driven Engines

It must be evident to all that there is often a heavy emission of oily smoke from motor vehicles, particularly from old cars and diesel engines which are an increasing nuisance, if not a definite hazard to health. What is not so evident is the emission of invisible gases and other pollutants resulting from the incomplete combustion of petrol and diesel fuel. Pollution from motor exhausts is at its worst during traffic blocks when engines are idling and when they are inefficiently maintained or operated.

The sulphur emissions from diesel engines are comparatively small and negligible in petrol-driven vehicles. The petrol, but not the diesel engine, produces carbon monoxide.

The important emissions, as far as health is concerned, are smoke, carbon monoxide and certain hydrocarbons, the latter being also found in the smoke and soot emitted from ordinary fires and furnaces under conditions of incomplete combustion.

Carbon monoxide is a lethal gas in high concentrations. It is produced in much greater quantities when engines are idling, as in

traffic blocks, but it is sufficiently diluted by the air to prevent its concentration reaching dangerous propensities. It can, however, in areas where vehicular traffic is heavy, reach sufficient concentration to produce headache and fatigue.

The development of cancer in man as a result of prolonged contact with such substances as Tar have been recognised for over a century and a half. It is only within the last thirty years, however, that this carcinogenic activity has been demonstrated to be due to specific types of hydrocarbon. These have been found not only in Tar, but also in various products of incomplete combustion of fuel in fires, and furnaces, and also in gasoline and diesel engine exhausts.

Research is still in progress with regard to motor engine exhausts and their relation to lung cancer. So far, there is no evidence that there is a direct positive association between the two and attempts to produce lung cancer in mice by exposure to petrol engine exhausts are inconclusive. Experimental skin cancer has, however, been produced in mice by the application of exhausts extracts.

Statistical evidence shows that there is a definite correlation between excessive cigarette smoking and lung cancer, an association which is more evident in highly urbanized areas than in rural areas. This difference between urban and rural areas may be due to excessive pollution of town air and such a supposition is supported by the fact that the same types of cancer-producing chemicals are found in the smoke from chimneys, the exhausts from cars and cigarette smoke. The suspect chemical is Benz-pyrene, which is one of the hydrocarbons found in these three types of smoke. Its concentration may be ten times greater in the air of highly industrialized areas than in country districts.

There are two important considerations with regard to exhaust emissions. The first is the fact that there is a marked increase in those potentially dangerous emissions when engines are idling and, secondly, that the diesel engine, which is the greatest offender with regard to hydrocarbon emission, can, by proper maintenance, and operation, be rendered innocuous.

Atmospheric Pollution Analysis of Pollutants Deposited in the Three Standard Gauges in Rochester and Chatham for Twelve Monthly Periods 1st October to 30th September during the years 1951/52: 1952/53: 1953/54: 1954/55.

(See Table I, page 13)

TOTAL SOLIDS DEPOSITED DURING THE TWELVE MONTH PERIOD OCTOBER 1ST—SEPTEMBER 30TH.

Site of Gauge	Tons per Square Mile				Increase in 1954/55 over previous years
	1951/52	1952/53	1953/54	1954/55	
Strood Cemetery, Rochester	196	188	216	288	72 to 100 tons per sq. mile
All Saints' Hospital Chatham	162	159	161	211	49 to 52 tons per sq. mile
Fort Pitt School, Rochester	175	174	184	240	56 to 66 tons per sq. mile

These recordings suggest that the total solids deposited on the whole of Chatham, an area of 6.83 square miles, have increased since 1951/52 by some 500 tons per annum and that this increase has occurred chiefly during the period 1954/55, when the total solids at Strood Cemetery reached 288 tons per annum per square mile. Atmospheric pollution may be considered to be bad when the total solids collected exceed 250 tons per annum.

During the forty-eight months under review the highest recorded deposit in any one month was 39.5 tons at All Saints' Hospital gauge in August, 1955, and the lowest recorded—8.8 tons in November, 1951, at Fort Pitt School gauge.

The Table on page 9 also shows that the annual deposit of solids has always been heaviest in the Strood gauge.

It is not easy to explain this deterioration in atmospheric conditions. It cannot be attributed to the recent exceptionally dry Summer as the records show that the increase in Total Solids was just as evident in the Winter of 1954/55 as it was in the Summer of 1955.

Neither can it be attributed to any one polluting agent in particular, as the percentage of each pollutant to the Total Solids deposited per annum has remained fairly constant at each recording station throughout the four-year period.

Practically all the serious pollutants emanate from domestic and industrial chimneys and motor exhausts, and it would appear that there has been a general increase in all the pollutants, the only exception being Tarry matter, which shows some reduction (see Table I, page 13).

The increase at each recording station is shown in the following comparative Table, which indicates the deterioration in 1954/55 in relation to the conditions recorded in 1951/52.

INCREASE IN DEPOSIT OF ANALYSED POLLUTANTS

1954/55 COMPARED WITH 1951/52.

Site of Gauge	Tons per Square Mile per Twelve Months					
	Ash	Tarry and Other Combustible Matter	Cal-cium	Chlor-ides	Sul-phates	Total Solids
Strood Cemetery	36	9	13	3	13	92
All Saints' Hospital	15	20	8	3	2	48
Fort Pitt School	27	16	5	1	4	65

MEAN RATE OF SULPHATION OF A STANDARD
'LEAD PEROXIDE CANDLE'.
Milligrammes of Sulphur Trioxide Fixed per Day
per 100 Square Centimetres

Period	All Saints' Hospital			Strood Cemetery			Fort Pitt School		
	Average	High-est	Low-est	Average	High-est	Low-est	Average	High-est	Low-est
1st Oct.— 30th Sept.									
1951/52	0.66	1.38	0.29	0.58	1.01	0.30	0.58	1.20	0.29
1952/53	0.92	1.52	0.40	0.92	1.78	0.33	0.83	1.20	0.41
1953/54	1.16	2.13	0.50	1.00	1.84	0.50	1.08	1.91	0.54
1954/55	1.12	1.84	0.37	1.08	1.94	0.62	1.00	1.72	0.48

Since 1951 the annual records show that the sulphur gases in the air have doubled their activity and this is, no doubt, partly associated with the building of over 3,000 houses in Rochester and Chatham since then and a considerable unknown number in adjoining districts.

Six new factories and 36 factory extensions, involving additional chimney stacks, have also come into operation.

Motor traffic has also grown to congestive proportions. Compared with a traffic Census of August, 1938, there were about 12,000 more vehicles passing over Rochester Bridge each week in August, 1954, when nearly 110,000 motor vehicles passed in one week. From this additional source only a small contribution of sulphur could emanate, as diesel oil contains a comparatively small amount of sulphur and the quantity in petrol is negligible but, they do emit smoke in quantities which increase considerably when fuel combustion is incomplete, as in idling engines in traffic blocks and in inefficient engines.

The highest rate of sulphation occurs in January and February, the lowest rate in July and August.

The highest reading was recorded in January, 1954, when the rate of sulphation was 2.13 milligrammes per day, and the lowest in August, 1952, with a figure of 0.29 milligrammes. This low figure approaches but does not reach what may be found in a rural area; the highest figure of 2.13 milligrammes being similar to that found in a moderately industrialized urban area.

This build-up of sulphur in the air occurs during the months when house coal fires are in full swing and the evidence of this seasonal increase is quite unequivocal. Our analyses show that during the months from October to September in each year under review, the amount of sulphation has been more than double that which occurs in the Summer months and this is attributable to domestic consumption of solid fuel. Electric heating produces no sulphur, gas a trivial amount, but smokeless fuels contain only a slightly less amount than bituminous coal.

Fortunately, the sulphur gases from solid fuel do not reach harmful concentrations in the air unless combined with smoke and moisture as in fog conditions. Their elimination is, therefore, of secondary importance provided the air can be cleared of smoke

by the use of gas, electricity or smokeless fuels in the home and in industry when practicable.

The First Step in Abatement

Of all the types of air pollution smoke is the greatest public health problem and, as already mentioned, its chief source is the domestic fire which burns bituminous coal. Unfortunately, coal is still the most popular fuel with the public and to point out that burning raw coal means air pollution with its resultant gloom, dust and detriment to health has, in the past, created little impression, but there are now signs of some public concern on the subject.

Clean air is just as essential to health as clean water and clean food, and it is difficult to understand why the public have tolerated a degree of pollution in the air which they would never accept in their drink or diet. It is this complacency in the past which has hung up progress and, to stimulate a reformation for the future, one feels obliged to draw attention to the fact that smoke is the only remaining sanitary nuisance which is not being tackled in a comprehensive manner. No section of the community has been blameless in this respect.

The legislature has not, so far, prescribed any compulsory measures on the domestic fire and, in view of this, it is obvious that without an enlightened public opinion there is no hope of clearing this pall of smoke effectively. This means that it can only be through a determined effort in co-operation between householders and local authorities on the one hand and industrialists on the other that we can get what the community would appreciate—fresh, clean air.

The objective in view is the reduction of smoke to such an extent that the natural cleansing processes of the atmosphere, such as wind, air turbulence, sun and other meteorological conditions will be able to disperse or neutralise the residual pollution. The atmosphere is well adapted to do this, provided it gets the chance.

This opportunity cannot become effective overnight because it means the elimination of raw coal from the household and the substitution of smokeless solid fuel, gas or electricity. Smokeless fuel, which gives good thermic value for money if properly used, is in insufficient supply to meet replacement requirements. Gas and electricity are comparatively dear except for occasional or temporary use. This raises supply and economic issues which are a national problem outside the province of this report. The difficulty would be solved if the supply was adequate and the price of smokeless fuels came down below the price of coal.

The elimination of raw coal in domestic fires until sufficient smokeless fuel is available is bound to be a gradual process. In the interim, modern fires are available which will consume coal with the minimum of smoke production and, thereby, not only reduce atmospheric pollution, but eliminate fuel wastage which in old domestic grates and old industrial plants is very considerable.

Industrial undertakings are subject to legal requirements which are likely to be more rigorous in the future, particularly with regard to smoke emissions, but this will not give the optimum improvement unless the domestic consumer of coal plays his part.

TABLE I
Total Annual Deposited Matter in Tons Per Square Mile

Periods 1st Oct. to 30th Sept.	Rain- fall	Mean pH Value	All Solids			Water Insoluble Matter			Water Soluble Matter			Mean Rate of Sulphation of a Standard 'Lead Peroxide Candle' Milligrammes of SO ₃ fixed per day per 100 sq. cm.
			Insoluble Deposit	Soluble Deposit	Total Solids	Tarry Matter	Other Combustible Material	Ash	Calcium	Chlorides	Sulphates	
1951-1952	24	6.6	77	86	163	1.8	23	51	18	8	28	0.66
1952-1953	25	6.3	76	83	159	1.4	26	51	18	8	31	0.92
1953-1954	22	6.1	81	80	161	1.1	24	54	17	8	32	1.17
1954-1955	28	6.8	111	100	211	1.5	43	66	26	11	30	1.13
1951-1952	22	6.9	97	99	196	1.6	23	72	24	8	38	0.59
1952-1953	24	6.7	89	99	188	1.1	19	68	20	8	39	0.92
1953-1954	22	7.2	100	116	216	0.9	24	76	30	8	44	1.00
1954-1955	23	7.3	142	146	288	0.8	33	108	37	11	51	1.08
1951-1952	24	6.8	83	92	175	1.7	22	59	20	9	34	0.58
1952-1953	25	6.6	81	93	174	1.4	22	58	21	9	39	0.83
1953-1954	22	6.6	84	100	184	1.0	23	59	22	8	38	1.08
1954-1955	27	7.2	125	115	240	0.9	39	86	25	10	38	1.00

CONCLUSION

The year, for various reasons, has been an exceptionally busy one in many ways, but with the help and guidance of the Chairman and Committee members and the loyal support and willingness of the departmental staff, most of the difficulties have been resolved. I am, therefore, very pleased to take this opportunity to express my thanks for all the assistance which I have received, not forgetting my colleagues in other departments who have furnished me with data for this report.

I have the honour to be,

Your obedient servant,

J. O. MURRAY,

Medical Officer of Health.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA

Area (in acres)	4,371
Registrar General's estimate of resident population (Including forces stationed in the area)	48,520
Number of inhabited houses on the Rate Books:—	
Dwellinghouses	13,329
Shops with living accommodation	705
Licensed premises, hotels, etc., with living accom- modation	122
Rateable Value	£321,584
Product of penny rate (1953-1954)	£1,217.55

Extracts from Vital Statistics

Total Births (Live and Still)

	<i>Total</i>	<i>M.</i>	<i>F.</i>	<i>Total</i>
Live Births, Legitimate ...	767	399	368	816
Illegitimate ...	49	31	18	
Still Births, Legitimate ...	18	11	7	19
Illegitimate ...	1	1	—	
				835

Birth Rate

Birth rate per 1,000 of estimated resident population (crude rate)	16.82
Corrected by comparability factor (0.97) ...	16.32

Total Deaths

All causes at all ages	498
-------------------------------	-----

Death Rate

Death rate per 1,000 of the estimated resident population (crude rate)	10.26
Corrected by comparability factor (1.01) ...	10.36

Infant Mortality Rate.

	<i>M.</i>	<i>F.</i>	<i>Total</i>
Deaths of Infants under 1 year of age	12	5	17
All Infants per 1,000 live births			20.83

Neo-Natal Mortality Rate.

Deaths of Infants under 4 weeks of age ...	12
Death rate per 1,000 live births	14.7

The following table shows the average Birth, Death and Infant Mortality Rates for five yearly periods from 1910-1954.

Period	Birth Rate per 1,000 of estimated population	Death Rate per 1,000 of estimated population	Infant Mortality per 1,000 births
1910 to 1914	25.1	13.4	105
1915 to 1919	22	18	97
1920 to 1924	22.1	12.3	73
1925 to 1929	19.53	12.96	73.2
1930 to 1934	16.86	12.1	58
1935 to 1939	16.01	12.02	53.48
1940 to 1944	20.29	14.64	65.57
1945 to 1949	22.55	14.97	36.24
1950 to 1954	16.04	10.61	31.39

The number of deaths occurring each month at different age groups was as follows:—

Age	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Age group total
All under 1 year	1	—	4	3	—	1	1	3	2	—	1	1	17
1 and under 5	—	—	—	1	1	—	—	—	1	1	—	—	4
5 and under 15	—	—	—	1	—	—	—	—	—	—	1	—	2
15 and under 25	—	—	—	—	—	—	1	1	1	1	—	2	6
25 and under 45	1	2	3	2	2	5	3	1	1	1	1	2	24
45 and under 65	12	9	11	13	8	10	11	8	10	11	15	8	126
65 and over	33	32	30	27	23	24	24	23	29	15	25	34	319
Monthly Totals	47	43	48	47	34	40	40	36	44	29	43	47	498

Infantile Mortality

The following table shows the causes of infantile deaths in relation to age.

Disease	(a) Under 12 hrs.	(b) 13-24 hours	(c) 2-7 days	(d) 8-28 days	(e) Over 28 days	(f) Total
1. Congenital Malformation ...	—	—	3	1	—	4
2. Birth Injury ...	1	—	—	—	—	1
3. Prematurity ...	5	—	1	—	—	6
4. Pneumonia ...	—	—	—	—	1	1
5. Meningococcal Meningitis ...	—	—	—	—	1	1
6. Other Causes ...	1	—	—	—	3	4
Total ...	7	—	4	1	5	17

The following table shows the average increases in population in five yearly periods and the years 1952-4, since 1922:—

Period	Birth Rate	Death Rate	Natural increase per 1,000 Population
1922-1926	20.72	12.2	8.52
1927-1931	18.72	13.02	5.7
1932-1936	15.92	11.68	4.24
1937-1941	17.37	13.42	3.95
1942-1946	21.59	13.84	7.75
1947-1951	19.85	12.1	7.75
1952	15.53	10.46	5.07
1953	15.92	9.6	6.32
1954	16.82	10.26	6.56

TOTAL DEATHS, 1954

Chatham M.B.			
Causes of Death		M.	F.
All Causes		278	220
1.	Tuberculosis, respiratory	11	7
2.	Tuberculosis, other	0	0
3.	Syphilitic disease	2	0
4.	Diphtheria	0	0
5.	Whooping cough	0	0
6.	Meningococcal infections	1	0
7.	Acute poliomyelitis	0	0
8.	Measles	0	0
9.	Other infective and parasitic diseases	0	1
10.	Malignant neoplasm, stomach	8	1
11.	Malignant neoplasm, lung, bronchus	16	2
12.	Malignant neoplasm, breast	0	9
13.	Malignant neoplasm, uterus	0	5
14.	Other malignant and lymphatic neoplasms	24	25
15.	Leukaemia, Aleukaemia	0	1
16.	Diabetes	1	2
17.	Vascular lesions of nervous system	25	24
18.	Coronary disease, angina	51	25
19.	Hypertension with heart disease... ..	5	6
20.	Other heart disease	46	46
21.	Other circulatory disease	6	10
22.	Influenza	0	1
23.	Pneumonia	7	16
24.	Bronchitis	20	7
25.	Other diseases of respiratory system	2	4
26.	Ulcer of stomach and duodenum... ..	5	0
27.	Gastritis, enteritis and diarrhoea	0	1
28.	Nephritis and nephrosis	2	1
29.	Hyperplasia of prostate	6	0
30.	Pregnancy, childbirth, abortion	0	0
31.	Congenital malformations	4	4
32.	Other defined and ill-defined diseases	22	14
33.	Motor vehicle accidents	5	3
34.	All other accidents	4	4
35.	Suicide	5	1
36.	Homicide and operations of war	0	0

Section B

GENERAL PROVISIONS OF HEALTH SERVICES FOR THE AREA

Laboratory Facilities

The bacteriological examinations of throat swabs, sputum, blood, milk, water or other suspected material are carried out in the County Council Laboratory at Maidstone.

Chemical examinations are done by the County Analyst.

Clinics and Treatment Centres

Four Maternity and Child Welfare Centres are provided and the days and times of the various clinic sessions are as follows:—

ELM HOUSE, 15 NEW ROAD AVENUE. Tel. No. Chatham 3663.

Tuesday	Child Welfare	2.00—4.00
Wednesday (3rd & 5th in the month)	Diphtheria Immunisation	2.00—4.00
3rd & 4th Wednesday of every other month (commencing January)	Women's Welfare (By appointment only) ...	1.00—4.00
Monday	Ante-Natal	2.00—4.00
Thursday	Ante-Natal	2.00—4.00
Friday	Child Welfare	2.00—4.00

WHITE ROAD. Tel. No. Chatham 45767.

Monday	Child Welfare	2.00—4.00
Tuesday	Ante-Natal	9.30—11.30
Wednesday (1st) ...	Diphtheria Immunisation	2.00—4.00
Thursday	Child Welfare	2.00—4.00

KINGS ROAD. Tel. No. Chatham 3663, ext. 10.

Tuesday	Child Welfare	2.00—4.00
Wednesday	Ante-Natal	9.30—11.30
Wednesday (4th) ...	Diphtheria Immunisation	2.00—4.00
Friday	Child Welfare	2.00—4.00

WALDESLADE.

Friday (1st, 3rd and 5th)...	Child Welfare	2.00—4.00
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SCHOOL MEDICAL, MINOR AILMENTS CLINICS.

These clinics are provided as follows :

ELM HOUSE.

Monday—Before 9.30 a.m., Doctor.	9.30—10.30 a.m., Nurse.
Wednesday }	9.30—10.30 a.m., Nurse.
Friday }	9.30—10.30 a.m., Nurse.

DENTAL CLINIC, "ELMSLEIGH", MAIDSTONE ROAD. Tel. No. Chatham 2098. (By appointment).

SCABIES CLINIC.

St. William's Hospital, Rochester Wednesdays p.m.
(Arrangements to be made through the Public Health Department, Chatham. Tel. No. Chatham 3663/4).

CHEST CLINIC, 13 NEW ROAD, ROCHESTER. Tel. No. Chatham 2182.

Tuesdays, p.m. by appointment
Thursdays, a.m. (new cases) by appointment
Fridays, a.m. by appointment

TREATMENT CENTRE FOR VENEREAL DISEASES, 36 NEW ROAD, ROCHESTER. Tel. No. Chatham 3343.

Mondays 1.30 p.m.—4.30 p.m.
Thursdays 10.00 a.m.—1.00 p.m.

Hospitals in Chatham and Rochester are under the administration of the Medway and Gravesend Hospital Management Committee. Group Secretary —T. Rhodes, Esq., 20 Star Hill, Rochester, Tel. No. Chat. 4688.

Cases

Saint Bartholomew's Hospital, New Road, Rochester. Tel. No. Chat. 4278 and 4004. General, Medical and Surgical

All Saints' Hospital, Magpie Hall Road, Chatham. Tel. No. Chat. 3686. General, Medical, Surgical and Maternity.

St. William's Hospital, St. William's Way, Rochester. Tel. No. Chat. 3243. Infectious Diseases and post operative.

Ambulance Service, Star Mill Lane, Chatham. Tel. No. Chat. 58201.

Domestic Help Service

Domestic help is available for households where such help is required owing to the presence of any person who is ill, lying in, an expectant mother, mentally defective, aged persons or children not over compulsory school age, within the meaning of the Education Act, 1944.

Old People's Service

Night service is provided for old people living alone who are seriously ill and have no one to care for them.

Evening service for bedridden and housebound people living alone.

National Assistance Acts, 1948 and 1951

Removal to suitable premises of Persons in need of care and attention

It was not found necessary to remove any persons under the provisions of the above Acts.

SECTION C.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

(a) Notifiable Diseases (Other than Tuberculosis) during the year 1954

Diseases	Total Cases Notified	Treated in Hospital	No. of Deaths
Scarlet Fever	51	3	—
Pneumonia (Primary or Influenzal)	22	1	1
Puerperal Pyrexia	68	63	—
Erysipelas	4	1	—
Ophthalmia Neonatorum	1	—	—
Meningococcal Infection*	—	1	1
Measles	13	1	—
Whooping Cough	174	2	—
Dysentery	152	3	—
Food Poisoning	120	2	—
Acute Poliomyelitis (P)	1	1	—
Acute Poliomyelitis (NP)	—	—	—

* Unnotified Case

(b) Infectious Diseases (Ages)

Ages	Whooping Cough	Measles	Scarlet Fever	Pneumonia	Puerperal Pyrexia	Erysipelas	Acute Poliomyelitis (P)	Acute Poliomyelitis (NP)	Ophthalmia Neonatorum	Meningococcal Infection	Dysentery	Food Poisoning
Under 1	17	1	—	—	—	—	—	—	1	1	3	—
1 — 2	62	4	2	1	—	—	—	—	—	—	15	—
3 — 4	37	2	16	2	—	—	—	—	—	—	16	—
5 — 10	57	4	31	2	—	—	—	—	—	—	68	30
11 — 15	—	—	1	1	—	—	—	—	—	—	11	88
16 — 20	—	1	—	1	12	—	—	—	—	—	5	—
21 — 25	1	—	—	2	29	—	1	—	—	—	5	—
26 — 35	—	—	1	1	22	—	—	—	—	—	11	—
36 — 45	—	—	—	4	5	—	—	—	—	—	10	—
46 — 65	—	1	—	5	—	2	—	—	—	—	5	—
66 up	—	—	—	3	—	2	—	—	—	—	3	2
Totals	174	13	51	22	68	4	1	—	1	1	152	120

(c) Infectious Diseases (Wards).

Wards	Whooping Cough	Measles	Scarlet Fever	Pneumonia	Puerperal Pyrexia	Erysipelas	Acute Poliomyelitis (P)	Acute Poliomyelitis (NP)	Ophthalmia Neonatorum	Meningococcal Infection	Dysentery	Food Poisoning
St. Mary's ...	9	1	1	3	0	0	0	0	0	0	11	10
St. John's ...	61	4	17	4	3	2	0	0	0	0	22	58
St. Michael's ...	20	2	4	3	1	1	0	0	0	0	20	30
St. Paul's ...	25	0	13	1	61	1	0	0	0	1	35	12
Luton ...	50	5	13	9	3	0	1	0	1	0	61	8
Christchurch ...	9	1	3	2	0	0	0	0	0	0	3	2
Totals ...	174	13	51	22	68	4	1	0	1	1	152	120

(d) Table Showing Number of Cases of Infectious Diseases, 1929-1954

Year	Measles	Whooping Cough	Scarlet Fever	Diphtheria	Typhoid and Paratyphoid Fever	Puerperal Pyrexia	Erysipelas	Malaria	Ophthalmia Neonatorum	Pneumonia	Meningococcal Infection	Acute Poliomyelitis	Acute Encephalitis	Dysentery	Food Poisoning
1929			61	98	6	4	13	1	14	24	5	—	2	—	—
1930			84	44	2	2	21	—	4	7	2	—	1	—	—
1931			58	26	2	6	11	—	1	20	—	1	—	—	—
1932			149	11	16	4	11	—	4	21	6	—	—	—	—
1933			146	25	2	1	10	—	2	29	2	—	—	—	—
1934			114	31	1	2	17	—	2	19	—	—	—	—	—
1935			44	22	2	2	17	—	—	30	—	—	—	—	—
1936			40	25	—	1	21	—	4	20	1	—	—	—	—
1937			160	261	—	9	28	—	3	14	—	4	—	—	—
1938			233	208	4	4	19	—	2	23	—	—	—	—	—
1939			61	86	—	7	10	—	1	19	1	—	—	—	—
1940	79	12	20	13	—	8	14	—	4	22	2	—	—	—	—
1941	413	120	20	4	12	9	4	—	4	12	5	—	—	—	—
1942	417	219	38	8	—	16	7	—	5	32	6	—	—	—	—
1943	412	91	124	16	—	12	17	—	—	44	—	—	—	—	—
1944	201	182	48	12	1	18	18	2	3	29	3	—	—	4	—
1945	446	111	52	9	1	23	16	—	1	34	1	3	1	1	—
1946	568	52	26	2	—	4	16	5	—	27	2	1	—	—	—
1947	189	179	22	7	1	7	11	—	—	20	1	2	—	1	—
1948	723	171	8	—	—	9	15	—	1	24	3	2	1	—	—
1949	34	189	35	—	—	8	8	—	—	19	—	2	—	—	—
1950	567	137	85	—	—	9	20	—	—	28	1	1	—	20	—
1951	1183	396	57	—	—	18	4	—	1	62	—	—	2	46	3
1952	325	253	100	—	2	68	11	—	2	43	2	4	1	1	6
1953	880	205	31	—	—	101	9	1	1	49	1	7	—	33	3
1954	13	174	51	—	—	68	4	—	1	22	—	1	—	152	120

Scarlet Fever

Cases notified	...	...	...	...	...	51
Removed to Hospital	...	...	...	...	...	3
Households affected with 1 case	...	...	...	...	...	39
Households affected with 2 cases	...	...	...	...	...	6
Deaths	...	...	...	...	...	—

Diphtheria

No cases have been reported during the past seven years.

Immunisation against Diphtheria

Clinic Sessions :

Elm House	...	...	3rd & 5th Wednesdays p.m.
White Road	...	...	1st Wednesday p.m.
King's Road	...	...	4th Wednesday p.m.

The yearly figures are as follows:—

<i>Year</i>	<i>Immunised</i>	<i>Boosting Doses</i>
1932	561	—
1933	405	—
1934	359	—
1935	482	—
1936	395	—
1937	381	—
1938	129	—
1939	80	—
1940	—	—
1941	514	—
1942	2399	—
1943	825	—
1944	576	—
1945	546	—
1946	602	75
1947	426	348
1948	680	163
1949	941	1251
1950	622	235
1951	769	1063
1952	655	472
1953	637	427
1954	636	416

The following table shows the numbers and ages of children who attended the Clinic during 1954 for Immunisation:—

Year of Birth	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	Total
Primary Inoculations ...	63	388	77	19	15	40	20	5	2	5	2	—	—	—	—	636
Reinforcing Inoculations ...	—	—	—	—	12	241	90	24	16	14	6	12	1	—	—	416

The undermentioned figures show the number of children under the age of 15 years on the 31st December, 1954, who had completed a course of Immunisation at any time before that date (i.e., at any time since 1st January, 1940).

Year of Birth	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	Total
Last completed course of injections (whether primary or booster) 1950-1954	63	437	490	516	488	682	459	535	510	428	197	69	48	13	10	4945
1949 or earlier ...	—	—	—	—	—	7	59	111	29	28	163	366	307	324	314	1608

Vaccination against Small Pox

Year Birth	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	Before 1940	Total
Primary Vaccination	274	169	7	3	2	4	—	—	—	1	1	2	—	—	—	10	473
Re-Vaccination	—	—	—	2	2	3	—	1	—	—	—	—	—	—	—	21	29

Food Poisoning

Type of Outbreak	No. of Cases	Identified Agent	Foods Suspected	No. of Deaths
Family Outbreak I	2	Staphylococci Pyogenes	Cheese	—
Associated with a school kitchen I	118	Undiscovered cause	No particular food suspected	—

Clean Food Campaign

Lectures were given to various organisations throughout the year and close attention was paid to the hygiene of all food-preparing premises in the Borough.

Venereal Disease

The treatment centre for the Medway Area is situated at 36 New Road, Rochester. I am indebted to Dr. C. D Routh, Director, for the following particulars:—

<i>New Patients—Chatham</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Syphilis	5	5	10
Chancroid	—	—	—
Gonorrhoea	4	5	9
Non-Venereal	37	13	50
	—	—	—
	46	23	69
	—	—	—

Total No. of new patients from all districts 278

Total attendances of Chatham patients 836

Total attendances of patients from all districts served...3273

DISCHARGES (all districts)

Discharged Cured:—

Syphilis	...	...	...	...	...	...	19
Gonorrhoea	...	...	...	...	...	...	34
Non-venereal	...	...	...	...	...	...	188

DEFAULTED BEFORE COMPLETION OF TREATMENT

Syphilis	...	...	...	...	...	...	2
Gonorrhoea	...	...	...	...	...	...	—

DEFAULTED BEFORE FINAL TESTS OF CURE

Syphilis	...	...	...	...	...	...	3
Gonorrhoea	...	...	...	...	...	...	7

The following table shows the number of cases from Chatham since 1939:—

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Gonorrhoea	39	46	73	40	26	64	22	20	36	14	17	11	10	14	15	9
Syphilis	16	23	60	43	13	15	10	16	24	14	20	15	11	6	8	10
Chancroid	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Non-Venereal	42	42	43	39	49	233	59	69	72	57	59	60	59	49	45	50

Scabies

No. of cases treated	11
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Notification of Tuberculosis

PULMONARY

Total Notifications	92
By Private Practitioners	4
Hospitals	...	...	...	...	...	14
Chest Physician	...	...	...	...	...	47
Transferred from other districts	...	...	...	...	...	26
Reinstated Cases	...	...	...	...	...	1

NON-PULMONARY

Total Notifications	...	...	...	...	...	6
By Private Practitioners	...	...	...	...	...	—
Hospitals	...	...	...	...	...	3
Chest Physician	...	...	...	...	...	3
Transferred from other districts	...	...	...	...	...	—
Reinstated Cases	...	...	...	...	...	—

Delay in Notification

Three persons died of Tuberculosis who had not previously been notified as suffering from this disease.

I am indebted to Dr. S. Roy C. Price, Chest Physician, for the following information :—

Particulars of patients from the Chatham Area dealt with at the Chest Clinic, Rochester, during the year 1954.

	Pulmonary				Non-Pulmonary				Totals				
	Adults		Children		Adults		Children		Adults		Children		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Def. T.B.	29	22	6	4	1	1	—	3	30	23	6	7	66
Non T.B.	—	—	—	—	—	—	—	—	190	234	158	101	683
									220	257	164	108	749

Total Attendances—1868.

Number of patients sent to Institutions ... 57

TABLE SHOWING NEW CASES AND MORTALITY DURING 1954 :—

Age Group	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 year ...	—	—	—	—	—	—	—	—
1-5 years ...	2	4	—	—	—	—	—	—
6-15 years ...	2	3	—	3	1	—	—	—
16-25 years ...	6	6	—	—	—	—	—	—
26-35 years ...	9	5	1	2	1	—	—	—
36-45 years ...	3	3	—	—	—	1	—	—
46-65 years ...	13	6	—	—	6	5	—	—
66 years up ...	3	—	—	—	4	—	—	—
Totals ...	38	27	1	5	12	6	—	—

Registered cases of Tuberculosis as at 31st December in each year:-

Year	Pulmonary	Non-Pulmonary	Total	Deaths
1940	130	50	180	31
1941	156	52	208	40
1942	180	63	243	38
1943	199	70	269	40
1944	229	76	305	45
1945	232	81	313	38
1946	245	88	333	37
1947	259	102	361	34
1948	266	56	322	38
1949	291	72	363	30
1950	308	72	380	22
1951	322	69	391	20
1952	352	68	420	25
1953	392	70	462	8
1954	398	59	457	18

Average number of Notifications, Deaths and rates in 5 yearly periods from 1935—1954

Year	Population	Pulmonary Tuberculosis						Non-Pulmonary Tuberculosis						Totals			
		Notifications	Notifi. rate <i>Per 1,000 persons living</i>	Deaths	Death rate <i>Per 1,000 persons living</i>	Notifications	Notifi. Rate <i>Per 1,000 persons living</i>	Deaths	Death rate <i>Per 1,000 persons living</i>	Notifs.	Not. Rate <i>Per 1,000 persons living</i>	Deaths	Death Rate <i>Per 1,000 persons living</i>				
1935—1939	44,732	45	1.00	28	.62	72	.27	3	.07	57	1.27	31	.69				
1940—1944	35,752	63	1.76	33	.92	12	.34	6	.17	75	2.10	39	1.09				
1945—1949	39,932	71	1.78	32	.80	15	.38	4	.10	86	2.15	36	.90				
1950—1954	50,090	75	1.50	18	.36	10	.20	1	.02	85	1.70	19	.38				

SECTION D.

SANITARY CIRCUMSTANCES OF THE AREA

Rainfall during 1954.

I am indebted to Avon E. Crisp, Esq., M.A., M.Inst.C.E., for the following figures taken at the Luton Pumping Station :—

Month	Total depth in inches	
January	1.35	
February	1.86	
March	2.58	
April	0.23	
May	0.63	
June	3.87	
July	2.36	
August	3.21	
September	1.60	
October	1.66	
November	5.02	
December	1.62	
Total	25.99	

Water

Supply is by the Chatham & District Water Company and has been satisfactory both in quality and quantity. 36 samples of water were taken for bacteriological examination, each of which showed a good result. Chlorination is still carried out.

Premises with internal mains supply 15,271.

Water supply other than mains 20.

Drainage, Sewerage and Sewage Disposal

The number of houses connected to the public sewer during the year was :—

New Houses :—

Corporation Property	...	...	...	474
Private	...	...	...	215
Existing Houses	...	...	...	30
Total connected during year	...	...	...	719

An extension of 303 yards 9" foul sewer was made in Tunbury Avenue.

Public Cleansing

General public cleansing of street gullies, household and trade refuse is carried out by the Borough Engineer's Department and disposal is by controlled tipping.

House refuse is collected once per week except in the High Street, Military Road and Railway Street area where it is collected three times per week. Trade refuse is collected at the same time as the house refuse except where large quantities need special collection.

Sharsted refuse tip has been kept in a good condition.

Atmospheric Pollution Observations — Chatham and Rochester

ALL SAINTS HOSPITAL

Month	Rainfall During Month Inches	Mean Rain Fall	Prevailing Wind	Insoluble Deposit	Soluble Deposit	Total Solids	Monthly Deposit in Tons Per Square Mile				Water Soluble Matter			Milligrammes SO ₃ per 100 sq. cms. Lead Peroxide
							Water Insoluble Matter		Other Combustible Matter	Calcium	Chlorides	Sulphates		
							Soluble in Carbon Bisulphide	Ash						
January	1.35	1.395	N.E.	5.60	7.33	12.93	0.10	3.88	1.62	1.52	1.32	2.72	2.13	
February	1.86	1.825	S.W.	7.66	6.10	13.75	0.17	5.07	2.42	0.83	1.09	2.49	1.70	
March	2.58	2.41	S.E.	7.59	5.43	13.02	0.07	4.97	2.55	0.89	0.60	2.68	1.40	
April	.23	.3675	S.E.	4.84	4.04	8.88	0.10	3.12	1.62	0.80	0.30	1.72	1.30	
May	0.63	1.24	S.W.	8.19	8.38	16.57	0.10	5.57	2.52	1.79	0.76	2.72	0.95	
June	3.87	3.84	S.W.	9.94	10.94	20.88	0.06	6.63	3.25	1.96	0.56	2.72	0.54	
July	2.36	2.26	S.W.	8.91	7.29	16.21	0.10	6.26	2.55	1.69	0.40	2.39	0.66	
August	3.21	3.07	S.W.	6.23	6.16	12.39	0.10	4.04	2.09	1.62	0.53	2.22	0.56	
September	1.60	1.50	S.W.	5.04	5.37	10.41	0.07	3.18	1.79	1.19	0.46	1.43	0.71	
October	1.66	1.73	S.W.	5.47	5.04	10.51	0.07	3.28	2.12	1.09	0.40	1.59	0.87	
November	5.02	4.59	S.W.	7.52	9.64	17.17	0.10	3.98	3.45	2.25	1.92	4.14	1.50	
December	1.62	1.55	S.W.	6.23	9.11	15.34	0.10	4.31	1.82	1.62	1.43	2.55	1.83	

FORT PITT SCHOOL

January	1.35	1.395	N.E.	5.70	8.12	13.81	0.07	4.21	1.42	1.52	1.26	2.95	1.91
February	1.86	1.825	S.W.	9.91	8.02	17.93	0.17	6.63	3.12	1.36	1.39	3.31	1.45
March	2.58	2.41	S.E.	7.06	7.19	14.25	0.10	4.90	2.05	1.16	0.70	2.75	1.27
April	.23	.36	S.E.	5.34	5.63	10.97	0.10	3.68	1.56	1.16	0.43	2.45	1.09
May	0.63	1.24	S.W.	10.14	9.94	20.08	0.10	6.63	3.41	1.89	0.83	3.08	0.85
June	3.87	3.84	S.W.	7.72	11.70	19.42	0.03	5.83	1.86	3.15	0.63	3.31	0.55
July	2.36	2.26	S.W.	7.03	7.62	14.65	0.07	5.40	1.56	2.05	0.40	2.52	0.54
August	3.21	3.07	S.W.	6.99	9.38	16.37	0.07	4.90	2.02	2.32	0.56	3.18	0.58
September	1.60	1.50	S.W.	5.57	6.50	12.06	0.07	3.81	1.69	1.33	0.46	2.19	0.55
October	1.66	1.73	S.W.	4.64	6.13	10.77	0.03	3.31	1.29	1.39	0.40	2.05	0.80
November	5.02	4.59	S.W.	6.46	10.97	17.43	0.07	4.44	1.96	2.65	1.82	4.87	1.40
December	1.62	1.55	S.W.	4.31	8.78	13.09	0.03	3.65	0.63	1.49	1.39	2.39	1.57

STROOD CEMETERY

January	1.44	1.39	N.E.	4.54	7.46	12.00	0.07	3.48	0.99	1.42	1.26	2.32	1.84
February	1.79	1.82	S.W.	11.04	9.94	20.98	0.13	8.52	2.39	1.92	1.16	4.24	1.27
March	2.24	2.41	S.E.	9.05	10.11	19.15	0.07	6.99	1.99	1.22	0.73	4.24	1.22
April	.505	.36	S.E.	4.11	6.73	10.84	0.07	2.98	1.06	1.76	0.33	2.65	1.16
May	1.85	1.24	S.W.	9.54	10.27	19.82	0.10	6.46	2.98	2.22	0.80	3.68	0.97
June	3.825	3.84	S.W.	9.94	10.97	20.91	0.03	7.32	2.58	3.48	0.40	3.35	0.54
July	2.16	2.26	S.W.	8.19	9.68	17.86	0.07	6.20	1.92	2.52	0.43	2.98	0.50
August	2.94	3.07	S.W.	10.47	9.38	19.85	0.13	8.02	2.32	3.51	0.60	3.65	0.62
September	1.41	1.50	S.W.	8.88	8.35	17.23	0.07	7.06	1.76	2.35	0.56	2.92	0.51
October	1.805	1.73	S.W.	8.38	7.46	15.83	0.07	6.40	1.92	2.42	0.43	2.78	0.82
November	4.17	4.59	S.W.	13.82	18.86	32.68	0.17	10.51	3.15	4.64	2.02	7.13	1.28
December	1.49	1.55	S.W.	9.05	11.23	20.28	0.03	6.96	2.05	2.29	1.52	3.71	1.22

CHIEF SANITARY INSPECTOR'S REPORT FOR 1954

*To the Mayor, Aldermen and Councillors of the Borough
of Chatham*

MR. MAYOR, MESDAMES AND GENTLEMEN,

I have pleasure in submitting my Annual Report on the activities of the Sanitary Inspectors and Sanitary Depot for the year 1954.

The work of clearing slums was continued during the year and three clearance areas were submitted and confirmed and the demolition of houses in two of the areas was commenced.

There is still a time lag between the demolition of houses and the utilising of the sites for rebuilding. The ground thus becomes a dump for refuse, which necessitates its periodical clearing up.

It was with surprise that only two applications for certificates of disrepair under the Housing Repairs and Rents Act, 1954, were received and of these, one was refused.

The work of connecting existing houses to the Corporation foul sewers still continues and there was a welcome reduction in the number of applications for the emptying of cesspools.

Only one slaughterhouse licence has been issued during the year. These premises have been enlarged and modernised.

An application was received from the owner of one other slaughterhouse, asking the necessary requirements of the Council for the granting of a licence. These requirements have not, however, been carried out.

I have the honour to be,

Your obedient servant,

T. HOWARD,

Chief Sanitary Inspector.

7th November, 1954.

SECTION E.

HOUSING

1. Inspection of Dwelling-Houses during the Year

1. (a) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	838
(b) Number of inspections made for the purpose ...	2531
2. Number of dwelling houses (included under sub-head (I) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 and 1932	347
3. Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation (excluding clearance areas)	36
4. Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	229

2. Remedy of Defects During the Year without Service of Formal Notices

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers	156
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3. Action Under Statutory Powers During the Year

(a) Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936:—	
1. Number of dwelling houses in respect of which notices were served requiring repairs	Nil.
2. Number of dwelling houses which were rendered fit after service of formal notices:—	
(a) by owners	Nil.
(b) By Local Authority in default of owners ...	Nil.
(b) Proceedings under Public Health Acts:—	
1. Number of dwelling houses in respect of which notices were served requiring defects to be remedied	83
2. Number of dwelling houses in which defects were remedied after service of formal notices:—	
(a) By owners	94
(b) By Local Authority in default of owners ...	1
(c) Proceedings under Sections 11 and 13 of the Housing Act, 1936:—	
1. Number of dwelling houses in respect of which Demolition Orders were made	12
2. Number of dwelling houses demolished in pursuance of Demolition Orders	10
(d) Proceedings under Section 12 of the Housing Act, 1936:—	
1. Number of separate tenements or underground rooms in respect of which Closing Orders were made	2

2. Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit Nil.	
(e) Proceedings under Local Government (Miscellaneous Provisions) Act, 1953 —	
Number of dwelling houses in respect of which Closing Orders were made	10

New Houses During 1954

(a) The total number of dwelling houses on plans submitted during 1954 was 398.	
(b) The total number of houses completed during 1954 ...	630
(1) by Local Authority	474
(2) by other Persons	156

Re-Housing of Council House Applicants

During the year, 53 removals were undertaken by this Department and fumigation was carried out to the household effects.

Requisitioning of Vacant Houses

During the year, enquiries were made into 2 vacant houses, with a view to requisitioning. In both cases the houses were occupied. The main cause of delay was the time lag in redecoration and transferring the deeds of houses to new purchasers.

Housing Repairs and Rents Act, 1954

One certificate of disrepair was granted under the above Act. One application was refused.

Clearance Areas

The following areas were confirmed by the Minister of Housing and Local Government:-

7th April, 1954	— The Mount Clearance Area No. 1.	
	Nos. 1 - 12 The Mount	
	Number of Houses	12
	,, ,, persons displaced	19
	The Mount Clearance Area No. 2.	
	Nos. 40 - 48 The Mount	
	Number of Houses	9
	,, ,, persons displaced	18
24th August, 1954	— New Road Compulsory Purchase Order No. 3.	
	Nos. 99 - 137 New Road	
	Number of Houses	20
	,, ,, persons displaced	56

Slaughter of Animals Acts, 1933 to 1954.

The number of licensed slaughtermen on the register at the 1st January, 1955, was 11.

Pet Animals Act, 1951

Three shop premises were licensed for the sale of Pet Animals.

Rat Destruction

No. of rats caught in dwellinghouses	...	...	64
No. of rats caught in business premises	...	...	187
No. of rats caught at farms	...	...	13
No. of rats caught on Corporation property	...	...	47
			<u>311</u>

Poison treatment, according to the Ministry of Agriculture and Fisheries' instructions was carried out, and the number of rats destroyed was 213. Of this figure, 47 carcasses were found and included in the total of 311.

The manholes of the foul sewers were test baited and treated in May and November. The number of manholes test baited was 303 and the number of manholes poison baited was 144. The number of manholes showing takes was 14. The latter manholes were confined to three small areas.

The number of complaints of infestations received from local residents was 206.

Foods and Drugs Act, 1938.

During the year 125 samples of food and drugs were taken as per the following table :—

Description	No. of Samples		Result of Analysis		
	Formal	Informal	Adulterated		Genuine
			Formal	Informal	
Arrowroot		1			1
Baking Powder		1			1
Beef Sausages	1	3	1		3
Bicarbonate of Soda		2			2
Brown Sugar		1			1
Butter		4			4
Butterscotch Pieces		2			2
Buttered Chocolate Sweets		1			1
Cakeoma		1			1
Chicken Spread		2			2
Chico		1			1
Chop Sauce		2			2
Coffee		3			3
Condensed Milk		1			1
Cocoa		3			3
Cornflour		2			2
Cough Syrup		1			1
Cream Cheese		1		1	
Custard Powder		1			1
Egg Yolk		1			1
Fish Cakes		1			1
Garden Peas		3			3
Glycerine, Lemon & Ipec. Mixture		1			1
Grapefruit Slices		1			1
Ground Almonds		2			2
Ground Rice		2			2
Ham and Beef Paste		1			1
Honey		2			2
Ice Cream		3			3
Jam	1	5	1	1	4
Loose Coconut		1			1
Margarine	2	6		1	7
Milk	28	1		1	28
Nestles Cream		1			1
Nucafè		1			1
Oatmeal	1	1	1	1	
Onions		1			1
Oranges		3			3
Pearl Barley		1			1
Pork Sausages	2	2	2		2
Pudding Mixture		1			1
Rum Flavour		1			1
Sausage Meat		1			1
Self Raising Flour		1			1
Soups		3			3
Soyolk		1			1
Sterilised Cream		1			1
Tea		3			3
Tea Siftings		1			1
Vinegar		2			2
White Pepper		2			2
Totals	35	90	5	5	115

Adulterated Samples

Upon being submitted for analysis, the undermentioned samples were found to be below the required standard, and the following results were obtained:—

- | | |
|---------------------------------------|---|
| (i) Beef Sausages. | } Found to be inferior, being
low in meat content. |
| (ii) Pork Sausages (2 samples) | |

The matter was reported to the Ministry of Food.

- (iii) **Cream Cheese.** Found to be a cheese made from whole milk and not from cream. The matter was reported to the Ministry of Food.
- (iv) **Plum Jam** (2 samples). Found to be slightly low in fruit content.
- (v) **Loose Oatmeal.** Contained some foreign seeds, chiefly black bindweed.
- (vi) **Coarse Oatmeal.** Infested with mites and contained a small quantity (0.07%) weed seeds.
- (vii) **Margarine.** Found to be low in butter content.
- (viii) **Milk.** Contaminated by dirt.

In all the above cases the attention of the producer or vendor, as appropriate, was drawn to the result of the analysis.

Regarding the two samples of oatmeal, the remainder of the stock was disposed of for animal feeding under the supervision of this department.

Samples for Bacteriological Analysis.—County Laboratory, Maidstone

The following samples were collected for analysis :—

WATER

36 water samples were found to be " Good Water."

MILK

317 samples of milk were taken with the following result :—

Class of Milk	Number of Samples	Appropriate Tests	Number of Tests	
			Passed	Failed
Pasteurised	160	Phosphatase	151	9
		Methylene Blue	158	2
Tuberculin Tested (Pasteurised)	157	Phosphatase	150	7
		Methylene Blue	157	—

1 sample of raw milk was submitted for biological examination and proved to be Tubercle negative.

Gerber Tests.

44 samples of pasteurised milk were screened in the office on Gerber Apparatus and found to be up to the prescribed standard.

Milk (Special Designation) (Pasteurised & Sterilised Milk) Regulations, 1949-1953.

The following licences were issued under the above regulations :

Sterilised	...	...	...	...	123
Sterilised (Supplementary)	...	...	...	...	2
Pasteurised (Dealers')	...	...	...	...	8
Pasteurised (Dealers' Supplementary)	...	...	...	...	4
Pasteurised (Dealers' Pasteurisers)	...	...	...	...	3

Milk (Special Designation) (Raw Milk) Regulations, 1949-1954.

The following licences were issued under the above regulations :

Tuberculin Tested (Dealers')	...	...	...	8
Tuberculin Tested (Dealers' Supplementary)	...	...	...	4

Milk and Dairies Regulations, 1949-1954.

127 Milk Distributors are registered under the above regulations. 5 Dairies are registered.

254 inspections of Dairies were made during the year.

MEAT AND OTHER FOOD INSPECTIONS

Carcases Inspected and Condemned

	Cattle exclud- ing Cows	Cows	Calves	Sheep and Lambs	Pigs
Number inspected ...	378	90	136	617	3728
All Diseases except Tuberculosis— Whole carcasses condemned	—	—	—	—	18
Carcases of which some part or organ was condemned ...	62	36	2	12	422
Percentage of the num- ber inspected affected with disease other than tuberculosis ...	16.40	40	1.47	1.94	11.80
Tuberculosis Only— Whole carcasses condemned	3	1	—	—	3
Carcases of which some part or organ was condemned ...	40	21	1	—	38
Percentage of the num- ber inspected affected with tuberculosis ...	11.37	24.44	.73	0.0	1.09

Unsound Food Voluntarily Surrendered, 1954

The total amount of meat and other foods condemned was 9 tons 19 cwts. 3 qrs. 3 lbs.

	Tons	cwts.	qrs.	lbs.
Total weight of meat condemned ...	7	13	2	15
Total weight fish condemned ...	—	6	0	14
Total weight tinned and other foods condemned ...	2	0	0	2

All condemned meat is collected and conveyed to the Sanitary Depot where it is dyed with a vegetable dye and disposed of to a manufacturing firm of animal by-products.

Tinned foods are punctured and buried along with the household refuse collection.

Inspection of Meat and other Foods

The following table shows the number of carcasses inspected since 1943:—

	Cattle Excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Total
1943 ...	1165	546	1025	6641	466	9861
1944 ...	1341	1087	963	4956	1147	9494
1945 ...	1425	990	1251	3313	1626	8605
1946 ...	1920	1065	3326	5079	1429	12819
1947 ...	850	349	986	2709	684	5578
1948 ...	443	54	—	5	322	824
1949 ...	324	63	2	3	547	939
1950 ...	369	28	—	2	584	983
1951 ...	494	11	—	2	947	1454
1952 ...	350	12	35	2662	2317	5376
1953 ...	12	—	—	—	1857	1869
1954 ...	378	90	136	617	3728	4332

There is one slaughterhouse in the Borough and it was used by the Ministry of Food up to July, 1954, when meat was decontrolled.

There is also one Knacker Yard, for which an annual licence was granted.

Food Premises

Cafes, Restaurants, etc.	...	...	...	...	...	41
Public Houses ...	...	...	...	...	...	85
Canteens ...	...	...	...	...	...	5
Butchers' Shops	...	...	...	...	...	39
Fish Shops (fried only)	...	...	...	...	...	6
„ „ (wet)	...	...	...	...	...	9
„ „ (fried and wet)	...	...	...	...	...	15
General Shops ...	...	...	...	...	...	55
Grocers' Shops ...	...	...	...	...	...	108
Greengrocers' Shops ...	...	...	...	...	...	39
Confectioners' Shops ...	...	...	...	...	...	26
Bakehouses ...	...	...	...	...	...	10
Dairies ...	...	...	...	...	...	5

FOOD AND DRUGS ACT, 1938. Section 14.

Ice Cream

4 premises are registered for the manufacture of ice cream and 154 for the sale and storage of ice cream.

Preserved Food

There are 10 premises registered for the preparation or manufacture of sausages or preserved food.

Fish Offal

Fish Offal collected and sold was 7 tons 18 cwts., and the amount received was £62 19s. od. (This amount includes a collecting fee).

Disinfestation of Bedding, etc.

Bedding from Council House Applicants fumigated	43
Furniture from Council House Applicants disinfected	43
Council house rooms fumigated for vermin ...	66
Rooms of other houses fumigated for vermin ...	63
Bedding disinfected for vermin	15
Beds or Parcels of Bedding destroyed	37
Infectious diseases—bedding fumigated	69
Infectious diseases—rooms disinfected	81
Wasps' Nests destroyed	4
Loads of Rubbish removed... ..	45
Miscellaneous items fumigated	70

Contagious Diseases of Animals Act

Eleven cases of Swine Fever were reported, seven of which were discovered in the slaughter house and forms "A" (Article 2 and 14) were served. The cases were confirmed by the Ministry of Agriculture and Fisheries.

Rag Flock and Other Filling Materials Act, 1951

There are no Rag Flock Manufacturing premises within the Borough but three premises where filling materials are utilised are registered. These premises are satisfactory.

Cesspool Work

The number of old houses connected to the Corporation Sewer during the year 1954 was 30. This means that some 25 leaking cesspools have been abolished.

753 complaints of choked drains and cesspool overflows were received, and it was found possible to clear 684 drains from obstruction. Overflowing cesspools made up the remainder of the complaints. The number of cesspools emptied was 69.

Camping Sites

There are no Summer camping sites within the Borough. Under section 269 of the Public Health Act, 1936, 16 individual licences were granted during the year. These licences were of a temporary nature.

Factories Acts, 1937 and 1948.

The following Tables give details of the work carried out at factories, workplaces and premises used by outworkers.

I. INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH.

Premises	Number on Register	Number of		
		Inspections	Written Notices	Occupiers Prosecuted
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authority	26	18	2	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	102	200	10	—
(iii) Other Premises in which Section 7 is enforced by the Local Authority (excluding outworkers premises)	—	—	—	—
Totals	128	218	12	—

II. CASES IN WHICH DEFECTS WERE FOUND.

Particulars	Number of cases in which Defects were found				Number of cases in which prosecutions were instituted
	Found	Remedied	Referred To H.M. Inspector	By H.M. Inspector	
Want of cleanliness	7	7	—	4	—
Overcrowding	—	—	—	—	—
Unreasonable temperature	—	—	—	—	—
Inadequate ventilation	—	—	—	—	—
Ineffective drainage of floors	—	—	—	—	—
Sanitary Conveniences					
(a) Insufficient	2	2	—	—	—
(b) Unsuitable or defective	2	2	—	6	—
(c) Not separate for sexes	—	—	—	—	—
Other offences against the Act (not including offences relating to Outwork)	—	—	1	—	—
Totals	11	11	1	10	—

III. OUTWORKERS.

Nature of Work	Section 110			Section 111		
	No. of out-workers in August list required by Sect. 110(1)(c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices Served	Prosecutions
Wearing Apparel— Making	93	—	—	—	—	—

Notices Served

During the year the following Notices were served:—

No. of Informal Notices	229
No. of Statutory Notices served due to 1954 Informal Notices not being complied with	73
No. of Statutory Notices served due to 1953 Informal Notices not being complied with	10
Total No. of Statutory Notices served during the year	83

The following were completed :—

No. of Informal Notices completed without a Statutory Notice having been served	156
No. of Statutory Notices completed	95
Total No. of Notices completed in year 1954	*251

* This figure includes notices completed during the year, but served prior to 1954.

Visits Made by the Sanitary Inspectors During the Year

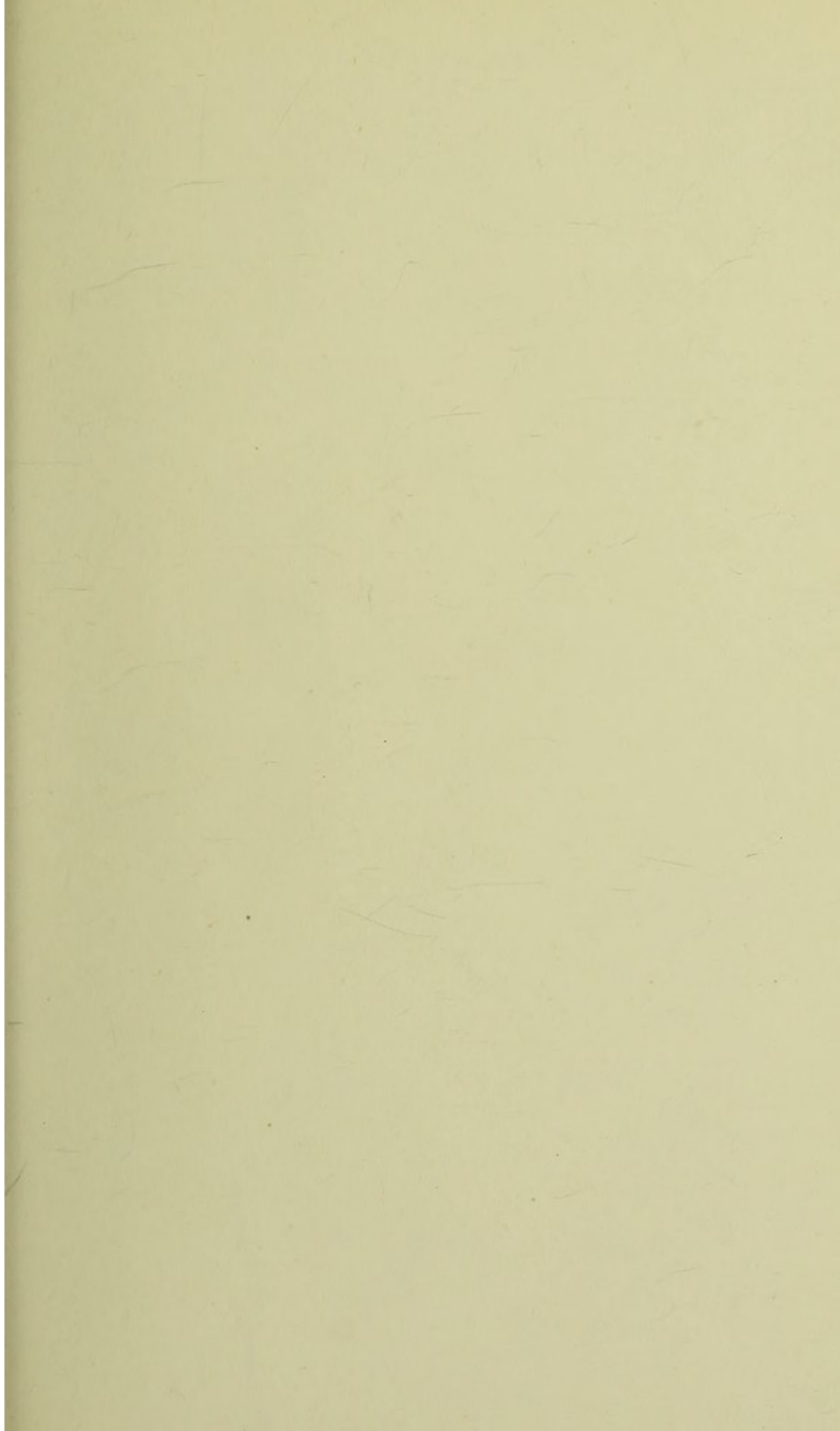
Atmospheric Pollution	61
Bakehouses	206
Bedding and Disinfection	11
Caravans	114
Cesspools	122
Cold Store	128
Contagious Diseases of Animals Act	131
Council House Applicants	62
Dairies	254
Drainage and Subsequent Visits	719
Drainage Tests (New)	138

Drainage Tests (Old)	54
Dysentery	767
Factories (P)	200
Factories (NP)	18
Fish Fryers	105
Food and Drugs	195
Food Shops	722
Gypsy Encampment	34
Houses (1st Visits)	491
Houses (Subsequent Visits)	1,219
Housing Act (1st Visits)	347
Housing Act (Subsequent Visits)	474
Ice Cream Vendors	44
Infectious Diseases	541
Knacker Yard	19
Marine Stores	5
Milk (Special Designations)	339
Outworkers	94
Overcrowding	18
Pet Animals Act	18
Piggeries	171
Public Conveniences	11
Refuse Heap and Accumulations	168
Restaurants	162
Rodent Control	198
Slaughterhouses	703
Tuberculosis	81
Unsound Food	368
Vacant Premises	2
Verminous Premises	81
Water Samples	52
Miscellaneous	1,213
Total Visits	10,860

Nuisances Abated after service of Notice.

Accumulations of Refuse removed	12
Ceilings repaired	40
Cesspools filled in	3
Chimney pots replaced	1
Chimney stacks repaired	13

Choked drains cleared	...	...	...	...	...	2
Coppers repaired or provided	...	...	...	...	...	3
Door locks or fasteners repaired	...	...	...	...	...	2
Doors or frames repaired	...	...	...	...	...	15
Doors provided	...	...	...	...	...	2
Drains repaired	...	...	...	...	...	10
Drains ventilated	...	...	...	...	...	3
Firegrates, stoves and kitcheners renewed	...	...	...	...	...	4
Firegrates, stoves and kitcheners repaired	...	...	...	...	...	17
Floors repaired or renewed	...	...	...	...	...	33
Gutters or downpipes cleared	...	...	...	...	...	6
Gutters or downpipes repaired or provided	...	...	...	...	...	31
Inspection covers provided	...	...	...	...	...	1
Inspection pits repaired or provided	...	...	...	...	...	1
Interiors cleansed	...	...	...	...	...	9
Roofs repaired	...	...	...	...	...	100
Sashcords repaired or provided	...	...	...	...	...	24
Sinks repaired or renewed	...	...	...	...	...	6
Sink waste pipes repaired	...	...	...	...	...	9
Stair treads or steps repaired	...	...	...	...	...	10
Vent shafts repaired	...	...	...	...	...	2
Walls repaired	...	...	...	...	...	63
Walls repaired for dampness...	...	...	...	...	...	22
Windows reglazed	...	...	...	...	...	1
Window frames, fasteners, sashes, sills repaired	...	...	...	...	...	53
W.C. floors renewed	...	...	...	...	...	2
W.C. pans renewed	...	...	...	...	...	14
W.C. seats or risers repaired	...	...	...	...	...	2
W.C. structures repaired or rebuilt	...	...	...	...	...	3
W.C. supply pipes repaired	...	...	...	...	...	15
W.C. flushing cisterns provided	...	...	...	...	...	1
W.C. flushing cisterns repaired	...	...	...	...	...	23
W.C. flush pipes repaired or renewed	...	...	...	...	...	10
Yard paving repaired	...	...	...	...	...	3
Miscellaneous	...	...	...	...	...	33



Chapter 10: The American West

Section 10.1: The Frontier Thesis

Section 10.2: The Great Plains

Section 10.3: The American West

Section 10.4: The American West

Section 10.5: The American West

Section 10.6: The American West

Section 10.7: The American West

Section 10.8: The American West

Section 10.9: The American West

Section 10.10: The American West

Section 10.11: The American West

Section 10.12: The American West

Section 10.13: The American West

Section 10.14: The American West

Section 10.15: The American West

Section 10.16: The American West

Section 10.17: The American West

Section 10.18: The American West

Section 10.19: The American West

Section 10.20: The American West

Section 10.21: The American West

Section 10.22: The American West

Section 10.23: The American West

Section 10.24: The American West

Section 10.25: The American West

Section 10.26: The American West

Section 10.27: The American West

Section 10.28: The American West

Section 10.29: The American West

Section 10.30: The American West