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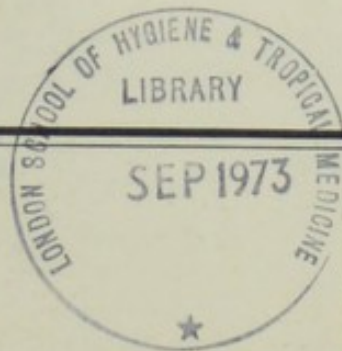
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ANNUAL REPORT

of the
Health Department
of the
City of Dundee
for the year 1971

IAN B. L. WEIR

B.Sc., M.B., Ch.B., D.P.H., D.P.A.
MEDICAL OFFICER OF HEALTH



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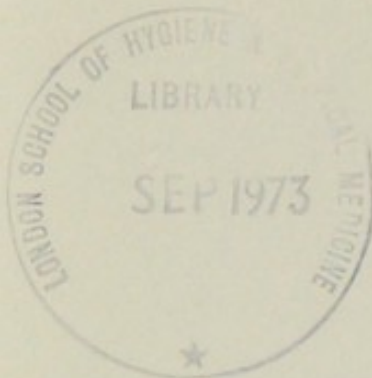
CITY OF DUNDEE

*Report of the
Medical Officer of Health*

FOR THE YEAR ENDING
DECEMBER 1971



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Dundee



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Summary of Vital Statistics for 1971 as compared with 1970

	1970	1971
Population	181,508	182,930
Number of Deaths (corrected)	2,142	2,087
Death-rate per 1,000 population	11.8	11.4
Deaths of Infants under 1 year	40	43
Infantile Death-rate per 1,000 births	14	15
Marriage-rate per 1,000 population	8.8	8.5
Number of Births Registered (corrected)	2,921	2,903
Birth-rate per 1,000 population	16.1	15.9
Illegitimate Birth-rate per 100 births	10.3	11.4
Still-births per 1,000 births (including still-births)	12	9
Number of Deaths from Pulmonary Tuberculosis	4	4
Number of Deaths from all forms of Tuberculosis	8	10
Death-rate per 1,000 population from Pulmonary Tuberculosis	0.02	0.02
Death-rate from all forms of Tuberculosis	0.04	0.05
Death-rate from Principal Epidemic Diseases	0.13	—
Deaths from Diphtheria	—	—
Maternal Mortality per 1,000 births	—	—
Neo-Natal Mortality	10	10
Number of Deaths from Malignant Diseases	467	465
Death-rate from Malignant Diseases	2.57	2.54

Annual Report, 1971

The Lord Provost, Magistrates and Town Council
for the City of Dundee.

LADIES AND GENTLEMEN,

I have, once again, pleasure in presenting my report on the work of the Health Department for the year 1971.

During the year a start has been made to effect the reorganisation of the National Health Service in Scotland and this is scheduled to take effect in 1974.

In the text of this Annual Report various statistics will indicate that the health in the city has been maintained at a high level and it is hoped that this trend will continue in the future.

Vital Statistics : The statistics show that the health of the City has been maintained at a satisfactory level, although no records have been broken.

Population : The population of the City as estimated by the Registrar General at the middle of 1971, was 182,930 — an increase of 1,422 over the previous year. The natural increase of population — the increase of births over deaths — is 816.

Deaths : The number of deaths corrected for transfers during 1971 was 2,087 compared with 2,142 in 1970. The respective rates per 1,000 population were 11.4 and 11.8. The figures for Aberdeen, Edinburgh and Glasgow are 11.8, 12.9 and 13.0 respectively.

The average age at death during 1971 was 69; in 1970 it was 68. The proportional mortality ratio which is the number of deaths at the age of 50 years and over expressed as a percentage of the total number of deaths in the population was 90.7 per cent. In 1970 this figure was 89.4 per cent.

Ten deaths were attributed to tuberculosis this year compared to eight last year.

Deaths from respiratory conditions decreased from 288 in 1970 to 276. There were no deaths from Influenza during the year — 22 in 1970. The principal causes of all deaths, diseases of the heart and circulation accounted for 1,032 deaths of which 565 were due to ischaemic heart disease and 285 to cerebrovascular disease.

The number of malignant deaths — 465 — shows a decrease of 2 compared with the 1970 figure of 467. Cancer of the lung accounted for 138 of these (112 males and 26 females).

Deaths from unnatural causes remain high — accidents in the home 35 (27), motor vehicle accidents 18 (24) and suicides 27 (35). The 1970 figures are shown in brackets.

Infant Deaths : The 1971 figure of 15 per 1,000 births is higher than the record breaking figure of 14 per 1,000 births in 1970. The under-

noted table gives an indication of the progressive reduction in the number of infant deaths over the years.

Year	No. of Live Births	Total Infant Deaths	Infant Death Rate (per 1,000 live births)
1971	2903	43	15
1961	3681	89	24
1951	3142	128	41
1941	2850	253	89
1931	3431	317	92
1921	4450	509	114
1911	4330	668	154
1901	4695	844	180

Stillbirths : There were 27 stillbirths (corrected for transfer) compared with 34 in 1970. A fuller report on the Infant Deaths and Stillbirths is contained in the Maternity and Child Welfare Section.

Maternal Deaths : There were no maternal deaths in 1971.

Births : There were 2,903 births (corrected for transfer) compared with 2,921 in 1970. The 1971 birth rate per 1,000 population was 15.9, in 1970 it was 16.1.

Illegitimate Births : In 1971 there were 331 illegitimate births, representing a rate of 11.4 per 100 live birth, in 1970 the rate was 10.3.

Smallpox Vaccinations : The number of primary vaccinations during 1971 increased from 1,852 in 1970 to 2,128. 18 children under the age of one year were vaccinated; in 1970 the number was 30. In addition, 2,095 persons were re-vaccinated compared with 1,818 in 1970. No special clinics were held this year, but vaccination was offered routinely at Child Welfare Clinics and by general medical practitioners.

Diphtheria, Tetanus and Whooping Cough Immunisation : During the year, immunisation records were received in respect of the undernoted young children who completed the full course of immunisation.

Tetanus	12
Diphtheria and Tetanus	159
Diphtheria, Tetanus and Whooping Cough	1987
Pertussis	1

Measles Vaccination : 1,967 children were immunised this year compared with 1,858 in 1970. Records received from all sources are as follows :—

Children born in 1971	14
Children born in 1970	869
Children born in 1969	557
Children born in 1968	317
Children born in 1967	95
Children born in 1966	62
Children born in 1965	16
Children born in 1964 and earlier	37

1967

Rubella Vaccination : Vaccination was offered for the first time to girls in their 14th year and records received from all sources are as follows :—

Girls born in 1961	2
Girls born in 1960	3
Girls born in 1959	14
Girls born in 1958	1038
Girls born in 1957	1216
Girls born in 1956 and earlier	8
	<hr/> 2281 <hr/>

Poliomyelitis Immunisation : The record of persons receiving a full basic course of immunisation during the year is as follows :—

Children born in 1971	343
Children born in 1970	1618
Children born in 1969	237
Children born in 1968	89
Children born in 1967	19
Children born in 1966	12
Children born in 1965	86
Others	45
	<hr/> 2449 <hr/>

Parents continue to be advised by the district health visitors and by press advertisement of the importance of ensuring that their families are completely protected from this disease.

B.C.G. Vaccination : During the year 18 schools were visited, and the following figures include nurses, medical students, contacts, newborn babies and others, as well as school children.

	Tuberculin Tested			Negative Reactors			Vaccinated		
	M.	F.	Total	M.	F.	Total	M.	F.	Total
1971	2294	2540	4834	1382	1440	2822	1318	1402	2720
1970	3323	3460	6783	2004	2031	4035	1822	1733	3555

Venereal Diseases : The following details of new cases during the year have been supplied by the Medical Officer of the Treatment Centre :—

	Syphilis			Chancroid		Gonorrhoea					
	Acquired	Congenital	Total			Genital	Gonococcal Ophthalmia	Total	Ven. Cond. excl. Syph. Gonorr. and Chancroid	Total Venereal	Non Venereal
1971	6	—	6	—		389	—	389	953	1348	300
1970	5	—	5	—		332	—	332	894	1231	268
1969	2	—	2	—		237	1	238	687	927	226

Information about the Treatment Centre is usually displayed on notices placed in public lavatories. When requested, health visitors assist in following up suspected sources of infection and new suspected

cases. In the Port Health work of the Department, special emphasis is paid to the passing of information about treatment facilities to the master of incoming ships.

Tuberculosis : The number of cases confirmed to be suffering from active respiratory tuberculosis was 58, 44 males and 14 females. Last year's figure was 64, 36 males and 28 females.

The non-respiratory cases confirmed this year numbered 10, 4 males and 6 females. Last year's figure was 14, 4 males and 10 females. The site of disease in this year's non-respiratory cases included 1 miliary, 1 meningeal, 6 with superficial glands affected and 2 genito-urinary.

There were 10 T.B. deaths during the year, 4 pulmonary and 6 due to other forms of tuberculosis including late effects. The average age of death is 72 years.

The number of known cases of respiratory tuberculosis at the end of the year was 1,119. Details in sex and age groups is as follows :—

Sex	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and over	Total
Male	—	—	19	24	48	132	142	141	122	628
Female	—	—	20	24	68	134	126	69	50	491

During the year 21 cases of tuberculosis (9 of which were new cases) who were certified by Medical Officer to be in need of extra nourishment, were granted additional milk.

Home Nursing : The Dundee Sick Nursing Society and the Broughty Ferry Nursing Association continued their important work on behalf of the Local Authority.

A detailed abstract of the work is as follows :—

Home Nursing	New cases notified during the years						
	1971	1970	1969	1968	1967	1966	1965
Patients under 65 years	846	908	848	919	749	901	1105
Patients over 65 years	1345	1326	1148	1034	1009	1097	1111
	2191	2234	1996	1953	1758	1998	2216

1. Cases under treatment at 31st December, 1970	962
New Cases reported during 1971	2191
	<u>3153</u>

Cases removed from register during the year :—

(a) Convalescent	1338
(b) Removed to hospital	642
(c) Transferred	—
(d) Died	184
Total number of cases on register at 31st December, 1971	979

2. Total number of nursing visits during the year 1971	87,748
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3. Details of new cases registered during the year 1971 :—

(a) Nature of Treatment Required :

	Total	Age Grouping			
		0-4	5-15	16-64	65+
General Cases	408	—	—	84	324
Dressings	688	28	28	290	342
Blanket Baths	214	—	—	21	193
Enemas	201	7	9	63	122
Penicillin injections	156	6	12	95	43
Insulin injections	34	—	—	12	22
Other injections	295	8	2	131	154
Other treatment	195	10	6	34	145
	2191	59	57	730	1345

(b) Main Conditions and Age Groupings of New Cases :

	Total	0-4	5-15	16-64	65+
1. Tuberculosis	12	3	—	9	—
2. Other infectious diseases	36	—	—	16	20
3. Malignant and lymphatic neoplasm	214	4	2	80	128
4. Asthma	16	—	—	12	4
5. Diabetes Mellitus	57	—	—	15	42
6. Vascular Disease	96	—	—	13	83
7. Mental and Nervous Diseases	81	1	—	43	37
8. Diseases of heart and arteries	134	—	1	21	112
9. Diseases of the veins	93	—	—	24	69
10. Upper respiratory diseases	40	6	8	23	3
11. Other respiratory diseases	119	7	3	40	69
12. Constipation	183	7	10	54	112
13. Other diseases of digestive system	153	1	7	79	66
14. Diseases of urinary system and male genital organs	43	—	2	17	24
15. Diseases of breast and female genital organs	72	—	—	60	12
16. Diseases of skin and subcutaneous tissues	116	9	9	43	55
17. Diseases of bones, joints and muscles	108	—	—	35	73
18. Injuries	230	20	10	68	132
19. Senility	119	—	—	—	119
20. Other conditions	269	1	5	78	185
Total	2191	59	57	730	1345

4. Nursing Requisites issued during year :—

1 Walking Aid	15 Bed Pans
5 Back Rests	17 Commodes
5 Cages	8 Urinals
2 Zimmers	2 Wheelchairs
4 Air Rings	1 Foam Cushion

5. Staffing:—

	Average
Superintendent	1
Nurses (whole-time)	31
Nurses (part-time)	4

Nursing Equipment : as supplied by the Health Department :—

Bedpans	52	Air Rings	35
Plastic Sheets	65	Nappie Rolls	803
Fracture Boards	13	Wheelchairs	24
Urinals	32	Bed Cages	36
Bed Rests	40	Plastic Incontinence	
Poly Perch	2	Pants	133 (48 patients)
Pillows	2	Easicari Slings	2
Beds	2	Sputum Bottle	1
Commodes	162		

Welfare Foods : There was a slight increase in the sale of National Dried Milk and Orange Juice during the year. Details are as under-noted :—

	National Dried Milk	Orange Juice	Cod Liver Oil	Vitamins	Vitamin Drops
1968	9794	47,693	3979	2796	—
1969	7052	57,688	4586	3369	—
1970	6141	63,337	4057	3775	—
1971	6820	64,116	2791	3118	3216

Rehousing on Medical Grounds : The following cases were dealt with during the year :—

New applications for priority	1191
Previous cases reviewed	423
Total cases dealt with	1614

Of the above cases 3 were awarded outright medical priority, 209 were awarded secondary priority, 264 were awarded points, 16 were not supported and 71 received no further award. 9 exchanges were supported. 1,042 transfer cases were submitted, 24 of which were awarded outright priority, 510 were awarded points, 361 were not supported and 147 received no further award.

Infectious Diseases : The total number of cases notified to the Department in 1971 was 1,344, a decrease of 2,069 compared with the 1970 total. This dramatic fall in notifications is accounted for largely by a drop in notifications of measles from 1,832 in 1970 to 149 in 1971. In addition, chickenpox, dysentery, viral infectious hepatitis and acute primary pneumonia all showed a significant drop in notifications.

Of the total number of notified cases, 371 were treated in hospital, 240 less than in the previous year.

Statistical information relating to infectious diseases is given in Tables 15 and 16. The following paragraphs draw attention to several features of particular interest.

Meningococcal Infections : 11 cases were confirmed, one less than in 1970 and the same number as in 1969 and 1968. Eight cases presented with predominantly meningeal symptoms and three as septicaemia. There were no fatalities.

Of the total, four were under 1 year, six between 1 and 10 years and the remaining case a man of 59. There were seven males and four females.

Diphtheria : Throughout the year, contact was maintained with a male post-graduate student from the Middle East who is a known nasal carrier of a non-toxigenic strain of *C.diphtheria mitis*. Specimens from his family have remained negative.

Dysentery : Attention was drawn in last year's report to the marked decrease in the number of cases of dysentery being reported and this continued throughout 1971 with only 96 notifications, the lowest for many years. Of the total, nine were proven bacteriologically to be infections with *Sh. flexneri*.

Food Poisoning : The report for 1970 drew attention to a large outbreak in the eastern sector of the city caused by **Salmonella typhimurium** (phage type 32). During 1971, organisms of this phage type were isolated from four people, a 7 year old Broughty Ferry boy with a gastro-intestinal illness and three symptomless excretors. The latter were the mother of the above boy, a 2 year old child being investigated in hospital for another condition and a 44 year old man who had submitted a routine specimen in connection with his employment by East of Scotland Water Board.

S.typhimurium (phage type 10) was responsible for three cases. The initial case was a 10 year old boy who sickened while travelling to Dundee from Durham and who passed the infection to a Dundee boy of the same age who, in turn, infected a playmate.

S.typhimurium (phage type 1) was isolated from a man who was thought to have been infected through a carry-out meal purchased in Glasgow.

S.typhimurium was also responsible for illness in three members of one family and a further sporadic case. The phage types of these four cases are not available.

S.enteritidis was isolated from a 50 year old woman in the city and from a returning holidaymaker from Bulgaria. **S.bredeney**, **S.heidelberg** and **S.typhimurium** were isolated from three holidaymakers returning from Spain.

S.panama was responsible for an outbreak which affected eight people at a private party. Although the organism could not be isolated from any of the suspected sources it was quite clear from the histories of the eight people affected that the vehicle of infection was cold roast pork. **S.panama** was also isolated from an 8 week old baby but the source of infection here was never traced.

Four episodes of food poisoning involving eight people had the appearances of staphylococcal food infection but no organisms could be isolated.

Eight other notifications were received but the cases were considered on subsequent investigation not to have been food poisoning.

Enteric Fever : One case of illness due to *S.paratyphi* B (phage type 1) was reported in a 24 year old man. Although the source of infection was never traced, he had travelled fairly widely in the United Kingdom throughout the incubation period and had been "living rough" while on a mountain exercise with H.M. Forces.

No cases of typhoid fever were reported during the year.

The known carrier of *S.typhi* (phage type C1) was given a three month course of trimethoprim. Since the completion of treatment, she has submitted 13 specimens of faeces and all have been reported negative. The carrier of *S.paratyphi* (phage type 1) has continued to excrete the organism. Both ladies remain under surveillance.

Leprosy : The single case known to the Department remains under surveillance.

Malaria : The single case is the seaman referred to in the Port Health Report.

Viral Infectious Hepatitis : The report for 1970 indicated that the impression had been gained that the outbreak in the city was waning and this appears to be confirmed by the fact that only 192 cases were notified compared with 364 in the previous year. It should be pointed out, however, that notification of this disease was much more complete during the period of the three year enquiry into the epidemiology of viral hepatitis. The lower rate of notification may result partly from the fact that the intensive follow-up measures adopted during the period of the survey have been discontinued.

General Control Measures : Details of all admissions to King's Cross Hospital from the city of Dundee are telephoned daily to the Department and liaison is further strengthened by a weekly visit to that hospital by the Principal Medical Officer in Department. The Bacteriology Department, Dundee University, supplies daily reports of all relevant isolations from specimens submitted by hospital, general practitioners, etc., in the Dundee area. Head Teachers of schools and nursery schools notify all cases of infectious disease reported to them and the information received from hospital, laboratory and school sources is used to complement the notifications received from general practitioners.

Health visitors pay routine visits to the homes of all notified cases of dysentery, scarlet fever, erysipelas and viral hepatitis. Food poisoning episodes and notifications of enteric fever are generally investigated in the first instance, by a member of the medical staff. Other infectious diseases are investigated as the situation demands.

Clinic Premises : During the year 1971 no new clinic premises were opened but plans are well in hand for a purpose-built replacement clinic in the Charleston area. Forward planning is also in hand for the erection of a Health Centre in Crescent Lane.

Chiropody : At 31st December, 1971, the number of patients receiving treatment was 4,567, a decrease of 1,803 over the previous year. Details of the work carried out during the year are as follows :—

	Corns and Callosities	Nail Conditions	Bunions	Septic Conditions	Totals
New Cases	385	247	15	1	648
Revisits	12,365	4493	447	85	18,038
	12,750	4740	462	86	18,038

Domiciliary treatments amounted to 4,283 and are included in the above total.

Staff shortage is still the main problem in maintaining an efficient service and the waiting time between treatments is still too long. New patients are expected to wait a considerable time and, unfortunately, pressure is exerted to keep domiciliary treatments to a minimum. The shortage of chiropody staff is a national problem and not peculiar to this area.

Collaboration with the Social Work Department : Services continue to be provided by the Health Department for the various sections of the Social Work Department as mentioned in last year's Annual Report. With the coming into force of legislation regarding parking exemption, medical advice was also made available as to those considered eligible to receive exemption permits in a similar manner to the assessments given for applicants for travel permits and assistance with garden maintenance.

Tay River Purification Board — Oil Pollution 1971 : The 13th Annual Report of the Tay River Purification Board, as prepared by the River Inspector, makes reference to the continued action taken by the staff of the Board on the complaints about oil in the Tay estuary. While there were no cases of severe pollution during the year, the Board's staff have continued to give assistance to the Dundee Harbour Trust and to the Local Authority in tracing sources of oil pollution. One of the most frequent sources arises from deisel storage tanks and steps have been taken to have adequate precautionary measures observed.

In respect of the Dighty water, it is commented that although the stream has continued to be reasonably satisfactory, slugs of pollution from a variety of sources have caused polluted conditions resulting in fish mortalities.

Comment is also expressed about the state of the Tay estuary which is considered to be in good condition except for localised gross pollution in part of the Dundee area where untreated sewage and trade effluent is discharged. Preliminary measures are of course being taken in the City Engineer's Department to prepare schemes for sewage purification for the City.

Health Visiting : During 1971 we maintained our number of trained personnel. We had one retiral and two members resigned to take up Health Visiting duties in other cities, but we have a regular source of newly qualified health visitors from the Training School.

There is some difficulty in continuity of home visits mainly due to the movement of families from one area to another; new houses being

occupied in the perimeter of the city and old properties in the city centre being demolished. More health visitors are being group attached to General Practitioners and this should stabilise contact between health visitors and families.

A health visitor for Health Education was appointed this year, her work being taken up mostly with Anti Smoking. The bulk of teaching is done in the daily visits in the homes.

The health visiting staff have continued with Mothercraft Classes and again two health visitors participate in Mothercraft Classes in Maryfield and D.R.I. Liaison is continued in the Paediatric Ward and Orthopaedic Clinic in the hospital.

Much of the health visitors time was taken up with Nursing Students (86), Medical Students (56), Triple Duty Nurses (8) and other Students (10) for insight into Public Health.

Sick Leave : There has been a high incidence of sickness particularly in the early months of the year.

Routine School Work : We are still dependant on the R.G.N.'s who devote most of their time to this section of the work.

The Family Help Service is quite active but there has not been the same demand for this service.

There is a marked increase in the number of home visits to senior citizens. Our register shows we added 581 new geriatrics to our existing numbers.

Refresher Courses — Study days made available to the staff are always beneficial and greatly appreciated.

Port Health Administration : 293 ships arrived at the Port of Dundee during 1971, a decrease of three from the previous year's total. Details of action taken in respect of these vessels are given in the Sectional Report of the Chief Sanitary Inspector. The Port Medical Officer visits on arrival :—

1. All ships on which cases of illness are reported.
2. All ships coming from infected ports and without prior clearance at an "excepted port" (as defined in the Public Health (Ships) (Scotland) Regulations, 1971).
3. All ships arriving direct from ports other than—
 - (a) "Excepted Ports";
 - (b) Ports in Norway, Sweden, Denmark and Finland.

The Port Medical Officer boarded 30 such vessels on arrival, the same number as in the previous year. The vessels had arrived from ports in the following countries :—

EUROPE : U.S.S.R. — 12; Poland — 3; Italy — 3.

ASIA : Bangladesh (East Pakistan) — 10; India — 2.

Since Italian ports are within the "excepted area" ships are visited only where there are indications that they have called at North African ports during the voyage.

During the year, six seamen were admitted to King's Cross Hospital. Four were admitted from one ship with suspected viral hepatitis and the diagnosis was confirmed in three of them (two other members of

the crew of the same ship were treated on board for the same condition). The other two were a 39 year old Pakistani seaman, admitted with malaria, and a 32 year old Pakistani with dysentery. The former returned to his ship within the week but the latter was found on investigation to be suffering from bilateral pulmonary tuberculosis and was returned to Pakistan by air.

A 60 year old Pakistani seaman was admitted to Maryfield Hospital where he was found to have fractures of two ribs. He returned to his ship the following day.

A 53 year old Pakistani seaman was admitted to Ashludie Hospital for investigation of a possible pulmonary tuberculosis. Diagnosis was not confirmed and he returned to Pakistan.

Illness reported to the Port Medical Officer not requiring hospital admission included the two cases of viral hepatitis reported above, one man with venereal disease and one man with a widespread skin infection.

No cases of quarantinable diseases were seen during the year.

Medical Arrangements for Long-Stay Immigrants: All immigrants notified to the Department by the port or airport of entry are visited by a member of the medical staff and contact is maintained until the person has registered with a general practitioner. If the immigrant is unable to produce evidence of a satisfactory chest x-ray taken not more than six months prior to arrival in the United Kingdom, arrangements are made for this to be carried out locally. Children arriving from areas where there is a high incidence of tuberculosis are tuberculin tested and offered B.C.G. vaccination if negative. Cases giving a positive reaction are followed up at the Chest Clinic.

Statistics for the year are given in the following table, the numbers in brackets referring to children accompanying adult immigrants. It should be noted that, of the total, 11 were students undertaking courses at local further or higher educational establishments and not intending to settle in this country and that 9 were nurses coming either for training or to work at local hospitals.

Country of Origin	Notified	Successful contact made	X-rayed	Untraced
COMMONWEALTH				
Pakistan	23 (12)	16 (8)	18	7 (4)
India	11 (1)	10 (1)	8	1
Hong Kong	6 (6)	4 (3)	5	2 (3)
Jamaica	2	1	1	1
Malaysia	2	2	2	
Mauritius	2	2	2	
Rhodesia	2	2	2	
Malawi	1	1	1	
New Zealand	1	1	1	
Tanzania	1			1
ALIEN				
Hong Kong	5	4	4	1
Sudan	1	1	1	
	57 (19)	44 (12)	45	13 (7)

For comparison, the figures for the previous 5 years were :—

1966	33 (12)	32 (12)	30	1
1967	44 (8)	35 (8)	34	9
1968	88 (32)	85 (29)	84	3 (3)
1969	74 (13)	68 (12)	64	6 (1)
1970	75 (32)	69 (23)	67	6 (9)

It will be noted that the overall numbers are lower than in the past three years but that the proportion untraced is increasing. In addition to the 13 adults and 7 children who were never traced, contact was lost with two Indian adults immediately after the initial contact and before a chest x-ray could be carried out.

Tuberculosis in Immigrants : Five cases of pulmonary tuberculosis were notified in persons who had entered the United Kingdom between two and nine years previously. Two were from Pakistan and one each from Hong Kong, Nigeria and the Philippines. One of the Pakistani cases is of interest in that, although the lady had been in the United Kingdom from 1965 she had returned to Pakistan for one year, re-entering this country in June, 1970.

In addition non-pulmonary tuberculosis was notified in two Pakistani immigrants who had been in the United Kingdom three years and six years respectively.

Immigrants arriving at the Port of Dundee : No long-stay immigrants entered the country through the Port during the year. A 32-year old Indian seaman was referred to the medical inspector by the Immigration Officer. He was refused permission to land under Section 2 (4) (a) of the Commonwealth Immigrants Act, 1962, but was allowed ashore for investigation of suspected pulmonary tuberculosis at a local hospital. He was discharged within a week, having been found to be fit to be flown home to his country of origin for further treatment.

I am, Ladies and Gentlemen,

Your obedient servant,

IAN B. L. WEIR,

B.Sc., M.B., Ch.B., D.P.H., D.P.A.

Medical Officer of Health.

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TABLE I

Return showing Causes of Death (corrected for transfers) at different Age Periods during 1971

Cause of Death.	ALL AGES										Under 4 wks.		85 and over
	Total	Males	Females	1 yr.	5—	10—	15—	25—	35—	45—	55—	65—	75—
Enteritis and other diarrhoeal diseases	1	1	—	—	—	—	—	—	—	—	—	1	—
Tuberculosis of Respiratory System	4	4	—	—	—	—	—	—	—	—	1	1	2
Other tuberculosis, including late effects	6	3	3	—	—	—	—	—	—	—	1	2	1
Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningococcal Infections	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis and its sequelae	3	1	2	—	—	—	—	—	—	—	—	—	—
Other infective and parasitic diseases	55	32	23	—	—	—	—	—	—	—	4	15	20
Malignant neoplasms of stomach	138	112	26	—	—	—	—	—	—	—	11	42	52
Malignant neoplasms of trachea, bronchus and lung	33	—	33	—	—	—	—	—	—	—	7	9	5
Malignant neoplasm of breast	8	—	8	—	—	—	—	—	—	—	3	2	1
Malignant neoplasm of cervix uteri	28	13	15	—	—	—	—	—	—	—	3	5	10
Malignant neoplasms of lymphatic and haematopoietic tissues	203	79	124	—	—	—	—	—	—	—	21	50	63
Other malignant neoplasms	3	1	2	—	—	—	—	—	—	—	1	1	1
Benign and unspecified neoplasms	17	2	15	—	—	—	—	—	—	—	1	4	3
Diabetes mellitus	1	1	—	—	—	—	—	—	—	—	—	—	—
Avitaminoses and other nutritional deficiency	2	2	—	—	—	—	—	—	—	—	—	—	—
Anaemias	3	2	1	—	—	—	—	—	—	—	—	—	—
Other general diseases	1	1	—	—	—	—	—	—	—	—	—	—	—
Meningitis	26	4	22	—	—	—	—	—	—	—	3	1	6
Other disease of nervous system	37	11	26	—	—	—	—	—	—	—	5	10	9
Active rheumatic fever	31	11	20	—	—	—	—	—	—	—	2	4	9
Chronic rheumatic heart disease	565	325	240	—	—	—	—	—	—	—	14	40	118
Hypertensive disease	38	13	25	—	—	—	—	—	—	—	1	2	9
Ischaemic heart disease	285	111	174	—	—	—	—	—	—	—	9	32	88
Other forms of heart disease	76	28	48	—	—	—	—	—	—	—	3	6	28
Cerebrovascular diseases	164	71	93	—	—	—	—	—	—	—	5	4	32
Other circulatory diseases	102	74	28	—	—	—	—	—	—	—	1	3	17
Influenza	10	5	5	—	—	—	—	—	—	—	—	—	—
Pneumonia	15	6	9	—	—	—	—	—	—	—	2	4	3
Bronchitis, emphysema and asthma	2	1	1	—	—	—	—	—	—	—	—	—	—
Other respiratory diseases	10	5	5	—	—	—	—	—	—	—	—	—	—
Peptic ulcer	10	2	8	—	—	—	—	—	—	—	—	—	—
Appendicitis	5	1	4	—	—	—	—	—	—	—	—	—	—
Intestinal obstruction and hernia	27	14	13	—	—	—	—	—	—	—	1	3	6
Cirrhosis of liver	5	4	1	—	—	—	—	—	—	—	—	—	—
Other digestive diseases	5	4	1	—	—	—	—	—	—	—	—	—	—
Nephritis and nephrosis	12	4	8	—	—	—	—	—	—	—	—	—	—
Hyperplasia of prostate	14	6	8	—	—	—	—	—	—	—	—	—	—
Infections of kidney	—	—	—	—	—	—	—	—	—	—	—	—	—
Other disease of genito-urinary system	—	—	—	—	—	—	—	—	—	—	—	—	—
Abortion	—	—	—	—	—	—	—	—	—	—	—	—	—
Other complications of pregnancy, childbirth and puerperium	—	—	—	—	—	—	—	—	—	—	—	—	—
Diseases of skin, musculoskeletal system, etc.	6	2	4	—	—	—	—	—	—	—	—	—	—
Congenital anomalies of nervous system	10	3	7	—	—	—	—	—	—	—	—	—	—
Congenital anomalies of circulatory system	8	6	2	—	—	—	—	—	—	—	—	—	—
Other congenital anomalies	5	2	3	—	—	—	—	—	—	—	—	—	—
Birth injuries, difficult labour and other anoxic and hypoxic conditions	9	7	2	—	—	—	—	—	—	—	—	—	—
Other causes of perinatal mortality	3	3	—	—	—	—	—	—	—	—	—	—	—
Senility without mention of psychosis	3	1	2	—	—	—	—	—	—	—	—	—	—
Ill-defined and unknown causes	3	2	1	—	—	—	—	—	—	—	—	—	—
Motor vehicle accidents	18	11	7	—	—	—	—	—	—	—	—	—	—
Other road vehicle accidents	—	—	—	—	—	—	—	—	—	—	—	—	—
Accidents in the home	35	12	23	—	—	—	—	—	—	—	—	—	—
Other violence	30	15	15	—	—	—	—	—	—	—	—	—	—
Suicide and self-inflicted injury	27	17	10	—	—	—	—	—	—	—	—	—	—

TABLE II

Death-rates at Various Age Periods (from all causes each year, 1962-71)

Age Periods	1962		1963		1964		1965		1966		1967		1968		1969		1970		1971	
	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate	No. of Deaths	Death-Rate
All Ages	2260	12.3	2332	12.7	2222	12.0	2180	11.8	2356	12.8	2064	11.3	2220	12.2	2244	12.3	2142	11.8	2087	11.4
0 - 5	114	6.9	88	5.1	87	5.1	76	4.4	71	4.2	75	4.4	65	3.9	74	4.6	51	3.3	49	3.4
5 - 15	16	0.5	8	0.3	17	0.5	14	0.5	11	0.4	15	0.5	12	0.4	7	0.2	9	0.3	16	0.5
15 - 25	16	0.7	13	0.5	16	0.7	21	0.9	26	1.1	12	0.5	15	0.6	19	0.7	21	0.8	12	0.4
25 - 35	14	0.5	21	0.9	18	0.8	25	1.1	30	1.3	20	0.9	17	0.8	19	0.9	17	0.8	21	1.0
35 - 45	46	2.0	58	2.5	59	2.5	59	2.5	61	2.6	64	2.8	53	2.5	58	2.8	64	3.1	42	2.0
45 - 55	195	8.4	162	6.7	151	6.2	139	5.7	139	5.8	142	5.9	131	6.2	130	6.2	158	7.6	142	6.7
55 - 65	414	21.0	392	19.0	381	18.4	404	19.5	401	19.5	341	16.7	404	19.0	432	20.5	390	18.6	359	17.1
65 plus	1445	67.5	1590	80.0	1493	74.0	1442	71.4	1617	80.7	1395	70.2	1523	69.9	1505	67.2	1432	63.1	1446	63.1

TABLE III

Death-rate (from all causes) each month during the years 1962-71

Month	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
January	14.5	16.9	13.4	15.0	15.6	11.5	19.8	15.6	17.7	12.0
February	13.5	14.7	12.7	13.9	17.5	19.4	14.8	13.5	13.3	11.0
March	14.0	15.6	13.1	13.3	16.7	11.3	11.5	14.4	14.7	13.2
April	13.1	15.4	12.5	13.2	15.1	13.6	11.6	12.9	12.0	11.4
May	13.1	15.0	12.2	12.9	14.5	11.1	11.9	12.1	8.2	12.3
June	13.0	14.1	12.2	12.3	14.0	10.7	10.2	11.2	10.2	11.0
July	11.7	13.8	12.3	12.1	13.4	11.2	10.3	9.3	11.3	8.7
August	11.7	13.2	12.1	11.8	13.2	8.7	8.9	9.1	10.5	12.0
September	11.5	12.8	12.0	11.7	12.8	9.8	11.3	13.0	10.5	11.3
October	11.5	12.7	11.9	11.5	12.6	10.9	11.6	10.5	9.2	9.0
November	11.6	12.5	12.0	11.5	12.6	12.5	11.9	10.0	11.6	12.9
December	12.3	12.7	12.1	11.7	12.7	13.7	11.9	16.7	11.8	12.3

TABLE VI**Infant Mortality Rates from Various Groups of Causes Each Year 1962-71**

Year	Congenital	Digestive	Respiratory	Infectious Disease	All Other Causes	Rate per 1,000
1962	20.3	1.9	2.9	—	2.9	28.0
1963	12.2	1.6	3.2	0.8	1.8	19.6
1964	14.4	0.5	1.8	0.3	1.8	18.8
1965	13.3	0.3	1.4	—	3.0	18.0
1966	13.8	0.6	2.1	0.3	1.5	18.3
1967	12.8	0.6	1.9	0.6	3.0	18.9
1968	12.8	0.3	1.6	0.9	2.4	18.0
1969	13.4	0.3	0.6	0.7	4.2	20.2
1970	9.3	—	1.7	1.0	1.7	13.7
1971	11.0	—	1.7	—	2.1	14.8

TABLE VII**Infant Mortality Rates from All Causes at Various Age Period 1962-71**

Year	Births	Death Rates			
		Under 1 Week	Under 1 Month	Under 3 Months	Under 1 Year
1962	3,745	18	21	23	28
1963	3,766	12	13	15	20
1964	3,828	12	13	15	19
1965	3,676	13	13	15	18
1966	3,338	11	13	14	18
1967	3,279	9	11	13	19
1968	3,278	9	13	15	18
1969	3,066	10	13	15	20
1970	2,921	8	9	10	14
1971	2,903	7	10	13	15

TABLE VIII**Number of Illegitimate Births, Number of Deaths (under 1 year) of Illegitimate Infants, and Death-rate per 1,000 Illegitimate Births, since 1962**

Year	Illegitimate Births	Deaths of Illeg. Infants	Rate per 1,000 Illeg. Births
1962	248	13	52
1963	279	10	36
1964	293	10	34
1965	333	9	27
1966	327	10	33
1967	386	9	23
1968	386	7	18
1969	311	5	16
1970	301	5	17
1971	331	3	9

TABLE V

Certified Causes of Death at Various Ages Under 1 Year during 1971

Cause of Death	Under 1		WEEKS		Total	Under 2		MONTHS		9/12	Total
	1	1/2	2/3	3/4		2	2/3	3/6	6/9		
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—
Meningococcal Infections	—	—	—	—	—	—	—	—	—	—	—
Other General Diseases	—	—	—	—	—	—	—	—	—	—	—
Meningitis	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis—	—	—	—	—	—	—	—	—	—	—	—
Lung	—	—	—	—	—	—	—	—	—	—	—
General	—	—	—	—	—	—	—	—	—	—	—
Abdominal	—	—	—	—	—	—	—	—	—	—	—
Brain	—	—	—	—	—	—	—	—	—	—	—
Other forms	—	—	—	—	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	—	—	—	—	—	—
Other Infectious and Parasitic Diseases	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	1	—	—	—	1	—	1	1	1	—	4
Bronchitis	—	—	—	—	—	—	—	—	—	—	—
Laryngitis	—	—	—	—	—	—	—	—	—	—	—
Other Diseases of Respiratory System	1	—	—	—	1	—	—	—	—	—	1
Malignant Neoplasms of Lymphatic and Haematopoietic Tissue	—	—	—	—	—	—	—	—	—	—	—
Benign and Unspecified Neoplasms	—	—	—	—	—	—	—	—	—	—	—
Other Diseases of Nervous System	—	—	—	—	—	1	—	—	—	—	1
Cerebro Vascular Disease	—	—	—	—	—	—	—	—	—	—	—
Enteritis and Other Diarrhoeal Diseases	—	—	—	—	—	—	—	—	—	—	—
Intestinal Obstruction and Hernia	—	—	—	—	—	—	—	—	—	—	—
Other Digestive Diseases	—	—	—	—	—	—	—	—	—	—	—
Congenital Anomalies of Nervous System	4	1	1	—	6	1	1	—	1	—	9
Congenital Anomalies of Circulatory System	2	—	1	—	3	3	—	—	1	—	7
Other Congenital Anomalies	2	—	1	—	3	1	—	—	—	—	4
Birth Injury, Difficult Labour and other Anoxic and Hypoxic Conditions	7	1	1	—	9	—	—	—	—	—	9
Other Causes of Perinatal Mortality	1	1	—	1	3	—	—	—	—	—	3
Motor Vehicle Accidents	—	—	—	—	—	—	—	—	—	—	—
Accidents in the Home	—	—	—	—	—	—	2	—	1	—	3
Other violence	1	—	—	—	1	—	—	—	—	—	1
Ill-defined and Unknown Causes	—	—	1	—	1	—	—	—	—	—	1
TOTALS	19	3	5	1	28	6	4	1	4	—	43

TABLE IX

Table showing Number of Stillbirths and Rate per 1,000 Births 1962-71

Year	No. of Stillbirths	Total of Live Births and Stillbirths	Rate per 1,000 total Births (Live & Still)
1962	70	3,815	18.35
1963	71	3,837	18.50
1964	49	3,877	12.64
1965	68	3,744	18.16
1966	37	3,375	10.96
1967	36	3,315	10.85
1968	38	3,316	11.46
1969	28	3,094	9.05
1970	34	2,955	11.50
1971	27	2,930	9.21

TABLE X

Annual Death-rate per 100,000 population and Case Mortality, per cent, from Measles and Whooping Cough each Year since 1962

Year	MEASLES				WHOOPIING COUGH			
	Cases	Deaths	Death Rate per 100,000	Case Mortality per cent	Cases	Deaths	Death Rate per 100,000	Case Mortality per cent
1962	1,032	—	—	—	20	—	—	—
1963	538	2	1.1	.37	448	—	—	—
1964	127	—	—	—	51	—	—	—
1965	671	—	—	—	25	—	—	—
1966	615	—	—	—	65	—	—	—
1967	225	—	—	—	207	1	.54	.48
1968	173	1	0.5	.58	22	—	—	—
1969	745	—	—	—	8	—	—	—
1970	1,832	—	—	—	173	—	—	—
1971	149	—	—	—	167	—	—	—

TABLE XI

Maternal Mortality Rates — Number of Deaths per 1,000 Registered Births plus Stillbirths 1962-71

1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
.79	.78	—	.26	.59	.30	.30	.30	—	—

TABLE XII

Death-rate per 1,000 Each Year since 1962 from the Respiratory Diseases including Bronchitis, Pneumonia (all forms), Pleurisy, Laryngitis, etc.)

Year	Total Deaths	Death Rate per 100,000
1962	210	114.0
1963	258	140.0
1964	192	103.7
1965	237	127.9
1966	272	148.1
1967	185	101.5
1968	236	129.4
1969	250	137.4
1970	288	158.7
1971	276	150.9

TABLE XIII

Deaths in which Influenza was given as a Cause of Death Each Month, January, 1962 to December, 1971

Months	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
January	1	1	0	0	3	0	11	1	19	0
February	0	1	0	0	9	0	4	0	0	0
March	1	4	0	1	5	0	1	3	0	0
April	0	1	0	0	0	0	0	0	2	0
May	0	0	0	0	0	0	0	0	1	0
June	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	0	0
November	1	0	0	0	0	0	0	0	0	0
December	3	0	0	0	0	0	0	3	0	0
	6	7	0	1	17	0	16	7	22	0

TABLE XIV

Deaths in which Influenza appeared as a Cause in Death Certificate, 1962-71, Classified in Age Periods

Age Periods	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Under 1 year	0	2	0	0	1	0	0	0	0	0
1 - 5 years	0	0	0	0	1	0	0	0	0	0
5 - 15 years	0	0	0	0	1	0	0	0	0	0
15 - 25 years	1	0	0	1	0	0	0	1	0	0
25 - 45 years	4	0	0	0	0	0	0	0	2	0
45 - 65 years	0	2	0	0	1	0	1	2	4	0
65 and upwards	1	3	0	0	13	0	15	4	16	0
	6	7	0	1	17	0	16	7	22	0

TABLE XV
INFECTIOUS DISEASES — Number of Cases of Each Disease Notified and Accepted in Dundee
During the Year 1971

Also Number Removed and Number Not Removed to Hospital

Disease	At all ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 65	65 and upwards	Cases removed to Hospital	Cases not removed to Hospital
Anthrax	M	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	M	7	3	2	3	—	—	1	—	7	—
Chickenpox	M	144	3	18	121	1	—	—	—	7	137
Cholera	M	189	—	24	164	1	—	—	—	3	186
Continued Fever	M	—	—	—	—	—	—	—	—	—	—
Diphtheria	M	—	—	—	—	—	—	—	—	—	—
Dysentery	M	45	10	17	12	2	1	—	—	31	14
Encephalitis Lethargica	M	51	3	18	13	2	6	5	3	30	21
Erysipelas	M	12	—	—	—	—	—	9	1	4	8
Food Poisoning	M	15	1	2	6	2	3	1	—	4	6
Jaundice, Infective *	M	85	—	8	55	9	4	4	—	23	62
Leprosy	M	107	—	10	58	21	8	4	—	24	83
Malaria	M	—	—	—	—	—	—	—	—	—	—
Measles	M	84	8	35	41	—	—	—	—	11	73
Ophthalmia Neonatorum	M	65	5	27	33	—	—	—	—	3	62
Plague	M	—	—	—	—	—	—	—	—	—	—
Pneumonia, Acute Influenzal	M	—	—	—	—	—	—	—	—	—	—
Pneumonia, Acute Primary	M	97	9	16	10	4	3	9	42	86	11
Pneumonia (not otherwise notifiable)	M	87	5	4	9	—	8	14	43	71	16
Poliomyelitis, Acute (Paralytic)	M	—	—	—	—	—	—	—	—	—	—
Poliomyelitis, Acute (Non-Paralytic)	M	—	—	—	—	—	—	—	—	—	—
Puerperal Fever/Pyrexia	M	—	—	—	—	—	—	—	—	—	—
Rubella	M	47	—	2	45	—	—	—	—	1	46
Scarlet Fever	M	30	—	2	28	—	—	—	—	30	30
Smallpox	M	31	—	9	20	2	—	—	—	3	28
Typhoid Fever	M	38	—	18	19	1	—	—	—	5	33
Para-Typhoid A	M	—	—	—	—	—	—	—	—	—	—
Para-Typhoid B	M	1	—	—	—	—	—	—	—	—	—
Typhus Fever	M	—	—	—	—	—	—	—	—	—	—
Whooping Cough	M	83	15	23	44	1	—	—	—	16	67
TOTAL	M	652	49	130	357	23	12	13	24	44	195
	F	692	33	130	367	31	25	16	38	52	457
										176	516

* All refer to Viral Infectious Hepatitis

1900

1901

1902

1903

1904

1905

1906

1907

1908

1909

1910

1911

1912

1913

1914

Also included in the list are the names of the persons who have been granted the right of citizenship during the year 1914.

TABLE XVI

Monthly Notifications and Intimations of Infectious Diseases, Dundee, 1971

Disease	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Accepted Total
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	1	1	1	2	1	3	1	—	2	—	—	—	12	11
Chickenpox	42	40	70	37	19	18	3	12	16	13	26	34	330	333
Continued Fever (undulant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	27	13	12	9	6	4	2	5	1	15	4	10	108	96
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	2	—	2	2	2	4	1	—	3	5	—	1	22	24
Food Poisoning	3	2	4	5	2	—	4	5	1	1	8	1	36	36
Leprosy	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	—	—	—	—	—	—	—	1	—	—	—	—	1	1
Measles (Morbilli)	79	31	18	3	3	2	—	—	4	1	5	5	151	149
Measles (Rubella)	2	6	2	4	7	16	1	—	4	4	15	15	76	77
Ophthalmia Neonatorum	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia Acute Influenzal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia Acute Primary	15	24	19	20	10	10	9	8	14	20	21	18	188	184
Poliomyelitis Acute (Paralytic)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever/Pyrexia	—	1	—	—	—	1	—	—	—	—	1	—	3	4
Scarlet Fever	6	5	13	5	3	10	1	3	1	9	9	5	70	69
Paratyphoid B	—	—	—	—	—	—	—	1	—	—	—	—	1	1
Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Viral Infectious Hepatitis	21	21	24	14	6	14	10	10	11	23	30	16	200	192
Whooping Cough	56	40	39	10	7	3	2	2	—	2	—	2	163	167
	254	184	204	111	66	85	34	47	57	93	119	107	1361	1344

TABLE XVII

TUBERCULOSIS — Notifications and Deaths with corresponding rates per 1,000 population at Various Age Periods
Each Year since 1962

		PULMONARY TUBERCULOSIS						NON-PULMONARY TUBERCULOSIS					
		0-5		5-15		15-25		25-45		45-65		65 & over	
		No. 1,000	Per 1,000	No. 1,000	Per 1,000	No. 1,000	Per 1,000	No. 1,000	Per 1,000	No. 1,000	Per 1,000	No. 1,000	Per 1,000
1962	Notifications	13	.76	15	.49	18	.79	42	.86	43	1.00	5	.23
	Deaths	—	—	—	—	—	—	1	.02	3	.07	2	.09
1963	Notifications	6	.35	5	.16	24	.99	41	.88	28	.63	19	.95
	Deaths	—	—	—	—	—	—	2	.04	4	.09	6	.30
1964	Notifications	4	.23	13	.42	10	.41	30	.64	22	.49	12	.59
	Deaths	—	—	—	—	—	—	1	.02	1	.02	6	.30
1965	Notifications	6	.35	6	.19	15	.61	32	.68	21	.47	12	.59
	Deaths	—	—	—	—	—	—	1	.02	1	.02	3	.15
1966	Notifications	7	.41	6	.19	6	.25	33	.71	20	.45	8	.40
	Deaths	—	—	—	—	—	—	1	.02	2	.04	1	.05
1967	Notifications	1	.06	3	.09	10	.41	17	.36	21	.47	12	.60
	Deaths	—	—	—	—	—	—	1	.02	1	.02	4	.20
1968	Notifications	1	.06	7	.22	13	.48	26	.61	30	.70	13	.60
	Deaths	—	—	—	—	—	—	2	.05	2	.05	1	.05
1969	Notifications	—	—	12	.37	5	.18	38	.90	32	.76	26	1.16
	Deaths	—	—	—	—	—	—	—	—	—	—	2	.09
1970	Notifications	—	—	9	.28	10	.37	14	.34	16	.38	15	.66
	Deaths	—	—	—	—	—	—	1	.02	—	—	3	.13
1971	Notifications	—	—	5	.15	2	.07	12	.28	28	.66	11	.47
	Deaths	—	—	—	—	—	—	—	—	1	.02	3	.13

TABLE XVIII

TUBERCULOSIS — Notifications and Deaths with corresponding rates per 1,000 population for Each Year since 1962

	Estimated Population	Notification and Case Rate			Deaths and Death Rates								
		Pulmonary Tuberculosis No. per 1000	Non-Pulmonary Tuberculosis No. per 1000	Tuberculosis (all forms) No. per 1000	Pulmonary Tuberculosis No. per 1000	Non-Pulmonary Tuberculosis No. per 1000	Tuberculosis (all forms) No. per 1000						
1962	183,560	136	.74	26	.14	162	.88	6	.03	1	.01	7	.04
1963	184,119	123	.67	18	.10	141	.76	12	.07	—	—	12	.07
1964	185,228	91	.49	20	.11	111	.60	8	.04	3	.02	11	.06
1965	185,296	92	.50	27	.15	119	.65	5	.02	1	.01	6	.03
1966	183,744	80	.43	31	.17	111	.60	4	.02	2	.01	6	.03
1967	182,284	64	.35	16	.08	80	.43	6	.03	2	.01	8	.04
1968	182,340	90	.49	28	.15	118	.64	5	.02	1	.01	6	.03
1969	181,950	113	.62	22	.12	135	.74	2	.01	2	.01	4	.02
1970	181,508	64	.35	14	.08	78	.43	4	.02	4	.02	8	.04
1971	182,930	58	.32	10	.05	68	.37	4	.02	6	.03	10	.05

TABLE XIX

**PULMONARY TUBERCULOSIS — Notifications and Deaths
with corresponding rates per 1,000 population for Each Sex Each
Year since 1962**

Year	Notifications				Deaths			
	No.	Males per 1000	No.	Females per 1000	No.	Males per 1000	No.	Females per 1000
1962	89	1.04	47	.48	6	.07	—	—
1963	74	.86	49	.50	8	.09	4	.04
1964	51	.59	40	.41	6	.07	2	.02
1965	64	.74	28	.28	4	.05	1	.01
1966	52	.61	28	.28	4	.05	—	—
1967	41	.48	23	.24	4	.04	2	.02
1968	65	.75	25	.26	5	.06	—	—
1969	68	.79	45	.47	2	.02	—	—
1970	36	.42	28	.29	1	.01	3	.03
1971	44	.51	14	.15	4	.05	—	—

TABLE XX

**PULMONARY TUBERCULOSIS — Deaths in Institutions Each Year
since 1962**

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total Deaths from Pul. Tuberculosis	6	12	8	5	4	6	5	2	4	4
No. of Deaths from Pul. Tuberculosis in Institutions	3	8	6	4	2	4	4	2	3	4
Percentage of Total Deaths from Pul. Tuberculosis dying in Institutions	50.0	66.6	75.0	80.0	50.0	66.6	80.0	100.0	75.0	100.0

TABLE XXI

**MALIGNANT DISEASES — Number of Deaths and Death-rates
per 10,000 population Each Year since 1962**

Year	Males	Females	Total	Rates
1962	244	249	493	26.86
1963	245	261	506	27.48
1964	247	225	472	25.48
1965	265	250	515	27.79
1966	248	249	497	27.05
1967	253	216	469	25.73
1968	246	239	485	26.59
1969	282	231	513	28.20
1970	229	238	467	25.73
1971	236	229	465	25.42

TABLE XXII
Age and Sex Distribution of Deaths from Malignant Diseases during 1971 showing parts of the Body affected

MALES																									FEMALES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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All Sites	

TABLE XXIII

Number of Births per 1,000 population, Illegitimate Births per 100 Registered Births, and Marriages per 1,000 population Each Year since 1962

Year	Birth rate	Illegitimate rate	Marriage rate
1962	20.4	6.6	8.0
1963	20.5	7.4	7.8
1964	20.7	7.7	7.7
1965	19.8	9.1	7.7
1966	18.2	9.8	8.1
1967	18.0	11.8	8.8
1968	18.0	11.8	9.7
1969	16.9	10.1	9.3
1970	16.1	10.3	8.8
1971	15.9	11.4	8.5

TABLE XXIV**FACTORIES ACTS, 1961**

Report of the Medical Officer of Health in respect of the Year 1971
Part I of the Act

- (1) **INSPECTIONS** for purposes of provisions as to health (including visits made by Sanitary Inspectors).

Premises	Number on Register	Inspections	Number of Written Notices	Occupiers Prosecuted
(1)	(2)	(3)	(4)	(5)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	9	7	—	—
(ii) Factories not included in (1) in which Section (7) is enforced by the Local Authority	648	710	13	—
(iii) Other premises in which Section (7) is enforced by the Local Authority (including outworkers' premises)	28	54	—	—
Total	685	771	13	—

(2) CASES in which defects were found.

Particulars	Number of cases in which defects were found				
(1)	Found	Remedied	Referred to H.M. Inspector	Referred by H.M. Inspector	No. of cases in which Prosecutions were instituted
(2)	(3)	(4)	(5)	(6)	
Unreasonable temperature (S.3.)	—	—	—	—	—
Inadequate ventilation (S.4.)	—	—	—	—	—
Want of cleanliness (S.1.)	—	—	—	—	—
Overcrowding (S.2.)	—	—	—	—	—
Ineffective drainage of floors (S.6.)	—	—	—	—	—
Sanitary Conveniences (S.7.)—					
(a) Insufficient	—	—	—	—	—
(b) Unsuitable or defective	39	37	—	13	—
(c) Not separate for sexes	1	1	—	1	—
Other offences against the Act (not including offences relating to outwork)	—	—	—	—	—
Total	40	38	—	14	—

Part VIII of the Act — Outwork (Sections 133 and 134)

There were seven cases under this part of the Act concerning outworkers in August list required by Section 133(1) (c) who were engaged in the making, etc., cleaning and washing of wearing apparel.

Child Health Services

MATERNITY AND CHILD WELFARE SERVICES

Registration of Births : 2,902 (corrected) live births were registered in Dundee during the year (1,474 males and 1,428 females). This represents a live birth rate of 15.9 per 1,000 of the population.

331 (corrected) illegitimate live births (171 males and 160 females) were registered in the City during 1971 which is equivalent to an illegitimate rate of 11.4% of all live births.

The "corrected" stillbirth figure was 27 (10 males and 17 females). The stillbirth rate for the year was 9 per 1,000 live and stillbirths.

Year	Live Birth Rate (per 1,000 population)		Illegitimate Rate (per 100 live births)		Stillbirth Rate (per 1,000 tot. births)	
	Dundee	Scotland	Dundee	Scotland	Dundee	Scotland
1967	18.0	18.6	11.8	6.9	11	16
1968	18.0	18.3	11.8	7.4	11	15
1969	16.9	17.4	10.1	7.5	9	14
1970	16.1	16.8	10.3	7.7	12	14
1971	15.9	16.6	11.4	8.1	9	13

Notification of Births

			Premature	Mature	Total
Live Births	...	...	196 (217)	2696 (2682)	2892 (2899)
Stillbirths	...	...	17 (19)	10 (12)	27 (31)
			<hr/>	<hr/>	<hr/>
			213 (236)	2706 (2694)	2919 (2930)
			<hr/>	<hr/>	<hr/>

7.3% of all births were notified as premature as compared with 8.1% in 1970. Figures in brackets refer to 1970.

Classification of Notified Births According to Place of Confinement

(Live Births and Stillborn)

	Home				Institution			
	1967	1968	1969	1970	1971	1967	1968	1969
Doctor and/or Midwife	144	104	78	69	51	.....	.....	.....
Unattended	1†	—	—	—	—	.....	.....	.....
	—	—	—	—	—			
	145 (3.5%)†	104 (2.4%)	78 (1.9%)	69 (2.4%)	51 (1.8%)			
	—	—	—	—	—			
Royal Infirmary	2,033	2,113	2,037	1,476	1,413	.....	.....	.....
Maryfield Hospital	1,880	1,941	1,895	1,383	1,455	.....	.....	.....
King's Cross Hospital .....	—	—	—	—	—	.....	.....	.....
Clement Park	107	88	57	1	—	.....	.....	.....
Other Nursing Homes	24	17	8	1	—	.....	.....	.....
	—	—	—	—	—			
	4,044 (96.5%)	4,159 (97.6%)	3,997 (98.1%)	2,861 (97.6%)	2,868 (98.2%)			
	—	—	—	—	—			
	4,189 (100%)	4,263 (100%)	4,075 (100%)	2,930 (100%)	2,919 (100%)			

The figures relating to doctor and/or midwife include women booked for hospital confinement whose babies were born before admittance to hospital and is the reason for any difference in the following tables.

† Stillborn child found in refuse bin in February, 1967

Domiciliary Midwifery Service : During the year 1971, 1,288 women were attended by domiciliary midwives (this figure includes 1,244 early hospital discharges), and of these 36 were delivered at home.

Month of pregnancy at time of booking									Emergency Cases	Total
1	2	3	4	5	6	7	8	9		
—	3	8	6	4	3	10	1	1	—	36

Bookings by Trimesters for Domiciliary Midwifery Services

	1st Trimester	2nd Trimester	3rd Trimester	Total
1967	13 (10.3 %)	89 (70.6 %)	24 (19.1 %)	126
1968	13 (15.1 %)	60 (69.8 %)	13 (15.1 %)	86
1969	13 (19.7 %)	35 (53.0 %)	18 (27.3 %)	66
1970	13 (24.5 %)	31 (58.5 %)	9 (17.0 %)	53
1971	11 (30.6 %)	13 (36.1 %)	12 (33.3 %)	36

Domiciliary Bookings : All women who wish to engage a domiciliary midwife under Section 23(2) of Part III of the National Health Service (Scotland) Act, 1947, are asked to apply in the first instance at the Central Clinic, 1 Nelson Street, and 346 women attended for this purpose during the year (46 for home confinement and 300 for booked early hospital discharge). Initial advice and information is supplied as necessary at this time. No cases are accepted for domiciliary confinement unless a practitioner providing maternity services has been retained by the patient. Thereafter, professional attention is provided by the doctor and the midwife working in co-operation.

Administration of Analgesics : All the local authority's midwives are qualified to administer analgesia. During the year 30 women received entonox and 15 received pethedine.

Visits paid by Midwives : 1,263 ante-natal (including intra-natal) visits and 8,425 post-natal visits were paid by midwives during the year. Details, and comparative figures, are as follows :—

	1967	1968	1969	1970	1971
Ante-natal (including intra-natal visits) ...	2,367	2,080	1,453	1,328	1,263
No. of births attended ...	128†	86	66	53	36
Post-natal visits ...	6,077	6,250	6,411	8,841	8,425

† Includes two sets of twins

Medical Assistance : In accordance with statutory requirements, the midwives summon medical assistance whenever abnormality or illness becomes evident to them while attending a patient. The following table provides the requisite details for 1971 and comparative over the preceding four years.

	1967	1968	1969	1970	1971
In ante-natal period	36	21	13	19	2
During Labour	8	4	5	3	2
In puerperium—					
For mother	2	4	8	14	10
For child	5	1	2	5	1
	<hr/> 51	<hr/> 30	<hr/> 28	<hr/> 41	<hr/> 15

Midwives (Scotland) Act, 1951 : Under the above Act, the local authority has a supervisory function as regards the practice of midwifery in its area; midwives intending to practise must notify the local authority of their intention to do so each year; during the year under review, 104 such notifications were received. All other notifications were received in accordance with the rules of the Central Midwives Board for Scotland (Midwives (Scotland) Act, 1951).

In pursuit of the local authority's statutory function under the Nursing Homes Registration (Scotland) Act of 1938, the medical staff carried out the visitation of two maternity homes in the area during the year.

As is the usual practice, two midwives attended a Refresher Course during the year.

Supply of Maternity Outfits : Every expectant mother who is to be confined at home and who is making use of the arrangements for expectant mothers under the National Health Service, is entitled to be supplied with a maternity outfit free of charge. These outfits contain the main dressings required at the confinement and during the year 39 maternity outfits were issued.

Layettes : Layettes are issued to necessitous cases and are provided free of charge for babies of mothers who are not entitled to receive maternity benefit. During the year 9 layettes were issued.

Stillbirths : As already stated, the stillbirth rate was 9 per 1,000 births. 27 infants (10 males and 17 females) were registered as still-born and 17 (63%) were premature. During 1971, 27 (100%) stillbirths occurred in institutions.

**Comparison of Dundee Stillbirth Rates with other Stillbirth Rates in Scotland
(Rates per 1,000 Births)**

	1967	1968	1969	1970	1971
Scotland	16	15	14	14	13
Glasgow	18	17	16	17	15
Edinburgh	15	15	11	12	12
Aberdeen	8	10	11	12	13
Dundee	11	11	9	12	9

Causes of Pre-Natal Death

	Males — 10	Females — 17	Total — 27	
1. Causes in Mother				Total
Accidental and other ante-partum haemorrhages			4	
Toxaemia			1	
Abnormalities of placenta (insufficiency, infarction, etc.)			6	
Other cases			1	
			—	12
2. Difficulties in Labour				
Cord abnormality			1	
			—	1
				—
			Brought forward	13

						Carried forward	13
3.	Foetal Anomalies and Deformities						
	Anencephaly	...	...	...	...	7	
	Hydrocephalus	...	...	...	...	1	
	Exomphalus	...	...	...	...	1	
						<hr/>	9
4.	Ill-Defined or Unknown Cause						
	Asphyxia	...	...	...	...	4	
	Unknown cause	...	...	...	...	1	
						<hr/>	5
							<hr/>
							27
							<hr/>

Analysis of Stillbirths according to Place of Delivery, Social Class, etc.

Place of Delivery					Number of notified Dundee births and Stillbirths	Number of notified Dundee Stillbirths		
Institution								
Royal Infirmary					1,413	13		
Maryfield Hospital					1,455	13		
Nursing Homes					—	—		
Home					51	1		
					<hr/>	<hr/>		
					2,919	27		
					<hr/>	<hr/>		
Social Class								
					I. & II.	III.	IV. & V.	Total
No. of Stillbirths					3	12	12	27
Percentage of Deaths in each Social Class					11.1	44.4	44.4	100.00
Percentage of population in each Social								
Class (Dundee)					16.1	55.8	28.1	100.00

PREMATURE BIRTHS

	Premature live births born in hospital					Premature live births born at home or private maternity home					Premature still births borne in		
	Total	Died within 24 hrs.	In 1 and under 7 days	In 7 and under 28 days	Total	Died within 24 hrs.	In 1 and under 7 days	In 7 and under 28 days	Hospital	At Home	Private Mat. Home		
2lb. 3oz. or less	5	1	1	—	—	—	—	—	4	—	—		
Over 2lb. 3oz. up to and including 3lb. 4oz. ...	20	3	2	1	1	—	—	—	8	—	—		
Over 3lb. 4oz. up to and including 4lb. 6oz. ...	33	1	—	2	—	—	—	—	2	—	—		
Over 4lb. 6oz. up to and including 4lb. 15oz. ...	38	1	—	3	—	—	—	—	2	—	—		
Over 4lb. 15oz. up to and including 5lb. 8oz. ...	98	—	—	1	1	—	—	—	1	—	—		
	194	6	3	7	2	—	—	—	17	—	—		

Causes of Neo-Natal Deaths

Cause of Death	0-1 day	1-2 days	2-3 days	3-4 days	4-7 days	1-2 wks.	2-3 wks.	3-4 wks.	Total
Other causes of Perinatal Mortality ...	1	—	—	—	—	1	—	1	3
Birth Injury, Difficult Labour, and other Anoxic and Hypoxic Conditions ...	5	—	—	1	1	1	1	—	9
Pneumonia ...	—	—	—	1	—	—	—	—	1
Other Respiratory Diseases ...	—	—	—	—	1	—	—	—	1
Congenital Anomalies of Circulatory System	—	—	2	—	—	—	1	—	3
Congenital Anomalies of Nervous System	3	1	—	—	—	1	1	—	6
Other Congenital Anomalies ...	2	—	—	—	—	—	1	—	3
Ill-Defined and Unknown Causes ...	—	—	—	—	—	—	1	—	1
Other Violence ...	—	1	—	—	—	—	—	—	1
	11	2	2	2	2	3	5	1	28

**Comparison of Neo-natal and Infant Mortality Rates with National Rate
and with other Scottish Cities**

Year	Scotland		Glasgow		Edinburgh		Aberdeen		Dundee	
	I.M.	Neo-natal	I.M.	Neo-natal	I.M.	Neo-natal	I.M.	Neo-natal	I.M.	Neo-natal
1967	21	14	25	16	21	15	23	16	19	11
1968	21	13	26	15	19	12	19	12	18	13
1969	21	14	27	16	22	16	17	11	20	13
1970	20	13	23	13	19	13	15	10	14	10
1971	20	14	25	17	20	15	12	7	15	10

Causes of Death of Children aged 4 weeks - 12 months

Cause of Death	4 wks. - 2 mths.	2 - 3 mths.	3 - 6 mths.	6 - 9 mths.	9 - 12 mths.	Total
Pneumonia	—	1	1	1	—	3
Other Diseases of Nervous System	1	—	—	—	—	1
Congenital Anomalies of Nervous System	1	1	—	1	—	3
Congenital Anomalies of Circulatory System	3	—	—	1	—	4
Other Congenital Anomalies	1	—	—	—	—	1
Accidents in the home	—	2	—	1	—	3
	6	4	1	4	—	15

Analysis of Neo-natal Deaths according to Place of Delivery

Place of Delivery	No. of Notified Dundee live births	No. of Dundee neo-natal deaths
Institution		
Royal Infirmary	1,400	16
Maryfield Hospital	1,442	12
Nursing Homes	—	—
Home		
Doctor and/or Midwife (includes born before arrival at hospital)	50	—
	<u>2,892</u>	<u>28</u>

Of 28 mothers whose babies died in the neo-natal period, 13 were gainfully employed during their pregnancy; of these 9 (70.0%) had premature deliveries. 15 mothers were not employed apart from home duties and 8 (54.0%) had premature babies.

**Analysis of Neo-natal Deaths and Deaths of Children aged 4 weeks to 12 months
According to Social Class**

	Class I. and II.	Class III.	Class IV. and V.	Total
Percentage of Dundee Population in each Social Class	16.1	55.8	28.1	100.00
No. of neo-natal deaths	1	14	13	28
Percentage of neo-natal deaths in each Social Class	3.5	50.0	46.5	100.00
No. of deaths aged 4 weeks to 12 months	—	6	9	15
Percentage of deaths aged 4 weeks to 12 months in each Social Class	—	33.3	66.6	100.00

Deaths of Children between one year and five years : In addition to deaths of children under one year of age, 6 deaths of children (5 males and 1 female) aged from one year to five years were noted by the Department.

Cause of Death	Males	Females
Nephritis and Nephrosis	1	—
Pneumonia	1	—
Malignant Neoplasm	1	—
Accidents in the home	1	—
Other Violence	1	1
	<u>5</u>	<u>1</u>

Ante-natal Clinics : As previously, ante-natal clinics administered by the local authority are held once a week in three centres, namely Ancrum Road, Lochee; Brook Street, Broughty Ferry; and Balmoral Avenue, Douglas and Angus. The Eastern Regional Hospital Board provide the medical staff and health visitors provide nursing staff. The Regional Hospital Board also conduct their own ante-natal clinics at Dundee Royal Infirmary and Maryfield Hospital. A health visitor attends hospital ante-natal clinics thus providing a liaison between the hospital and the local authority's Child Health Services; there is also an arrangement whereby patients booked for hospital confinement may for convenience attend the local authority's clinics, and domiciliary cases may attend hospital clinics.

Attendances at Local Authority Ante-natal and Post-natal Clinics : 646 women attended for ante-natal examination while 169 attended for post-natal examination. 397 women made 2,389 attendances at combined mothercraft/relaxation classes.

Infant and Child Welfare Clinics : The following table shows the attendances made at Child Welfare Clinics during the year.

Children born in 1971	11,380
Children born in 1970	11,124
Children born in 1969-66	8,640

Attendance of Children at Child Welfare Centres

Year	New Cases			Attendances		
	0 - 1 Year	1 - 5 Years	Total	0 - 1 Year	1 - 5 Years	Total
1967	2,698	524	3,222	24,434	9,582	34,016
1968	2,644	582	3,226	20,302	9,001	29,303
1969	2,713	617	3,330	20,299	10,040	30,339
1970	1,831	1,133	2,964	11,791	17,914	29,705
1971	1,959	2,742	4,701	11,380	19,764	31,144

Mothercraft Classes : Classes in this subject were continued during the year in peripheral clinics (Hawkhill, Ancrum Road, Broughty Ferry) in addition to the existing facilities at Nelson Street.

Year	No. of sessions	No. of women attending	No. of attendances
1967	188	467	2,449
1968	186	606	2,913
1969	187	625	3,212
1970	180	570	2,256
1971	176	417	2,017

Ear, Nose and Throat Clinic : There is a monthly session at Nelson Street when the services of a consultant are available. During the year 5 children between the ages of one and five years attended this clinic for the first time, and a total of 5 visits were made.

Immunisation at Child Welfare Clinics : The following is a list of immunisation given at Child Welfare Clinics during the year 1971 :—

Triple Antigen (Primary)	...	...	1,124
Triple Antigen (Maintenance)	...	...	729
Poliomyelitis	...	...	1,464
Smallpox	...	...	568
Measles	...	...	1,250

Home Visitation by Health Visitors :— During the year 1971, Health Visitors made 79,151 visits to mothers and children under 5 years of age, an increase of 952 over the previous year's figures.

Home Visitation by Health Visitors

	1967	1968	1969	1970	1971
Ante-natal visits	10,388	8,992	8,308	7,819	9,318
Post-natal visits	3,837	3,817	3,890	3,969	3,443
Visits to children under 1 year	21,263	19,096	18,580	17,820	18,362
Visits to children between 1 - 5 years	52,456	48,529	48,719	48,591	48,028
	87,944	80,434	79,497	78,199	79,151

Nursing Homes Registration (Scotland) Act, 1938 : Six nursing homes are registered in terms of this Act.

Foster Children, Adopted and Illegitimate Children : The Health Visitors act in co-operation with the Social Work Department in the supervision of, and any necessary investigations into, the health of such children and those who care for them.

ASCERTAINMENT AND MANAGEMENT OF DEAFNESS IN CHILDREN

Statistical Data :—

Total Number of Children screened for Deafness	=	2460
A. Number of children screened on district by health visitors and found to have normal hearing (97% of whom were aged 7 months to 2 years)	=	2428
B. Number of children referred for first time to specialist medical officer for further tests (11 by health visitors, 4 by medical officers, and 2 by general practitioners). Seven of this group were referred to Otologist for opinion.	=	17

These 17 children on further testing showed :—

(1) Normal hearing response : (Including 1 backward child, and 1 with immature speech)	=	10	}	
(2) Slight catarrhal deafness : (1 child showed improvement after tonsils and adenoids were removed, and myringotomy. The other child had secretory otitis media which cleared with myringotomy)	=	2		
(3) Moderate hearing loss : (Child with high-tone deafness, mental retardation and autistic features. He has a hearing aid, is in a nursery school and parents receive guidance from Deaf Teacher and Psychiatrist)	=	1		17
(4) Severe deafness, awaiting admission to the Deaf School : (All were confirmed as severely deaf at the Speech and Hearing Clinic, Royal Infirmary, Dundee. 2 showed familial deafness, 1 was deaf because of rubella in mother's pregnancy, and 1 became deaf from meningitis at 5 months old. Parents are receiving guidance by a Deaf Teacher)	=	4		

C. Children reviewed from former years

(1) Normal hearing : (Including 1 whose mother attended a Deaf School, 1 with facial and hand deformities whose speech is improving in a play group, 3 backward children who were admitted to nursery schools, and 1 with a speech defect who is having speech therapy)	=	8	}	
(2) Slight catarrhal deafness : (Improved by adenoids removal)	=	1		15
(3) Severely deaf children : (2 were admitted to the Deaf School during the year, 4 await admission and are having guidance by a teacher of the deaf)	=	6		
TOTAL		=		<u>2,460</u>

To Sum Up :—

I. Number of children found to have normal hearing	=	2446 (99.43 %)
II. Number of children found to have slight catarrhal deafness	=	3 (0.12 %)
III. Number of children found to have moderate deafness	=	1 (0.04 %)
IV. Number of children found to have severe hearing loss, requiring special education later	=	10 (0.41 %)
		<hr/>
TOTAL	=	2460 (100.00 %)
		<hr/>

COMBINED ASSESSMENT COMMITTEE ON DEAFNESS

held at

SPEECH AND HEARING CLINIC, D.R.I., 1971

This team comprising Otologist, Headmistress of Deaf School, Educational Psychologist, Paediatric Registrar, Speech Therapist, and Specialist Medical Officer who visits the Deaf School and supervises the screening of under-fives in the City, met for 43 hourly sessions during the year. For a few sessions a Child Psychiatrist also attended.

Statistical Data :—

New Cases ...	...	...	...	...	85 (68 being Dundee children)
Review Cases	...	...	...	...	141 (106 being Dundee children)
Deaf School Children —					
(a) First visit	...	...	...	...	5 (3 being Dundee children)
(b) Subsequent visits	...	...	...	...	25 (12 being Dundee children)
					<hr/>
TOTAL	...	...	...	...	256 (189 being Dundee children)
					<hr/>

Deaf School Children :—

During the year five deaf children were admitted to the nursery class of the Deaf School, two on a trial basis at first and subsequently enrolled officially. One of these, a disturbed child of four years with lack of speech, presented difficulty in diagnosis. After five months in a Psychiatric Observation Unit severe deafness was confirmed at the Speech and Hearing Clinic, Dundee Royal Infirmary, and at the Audiology Unit, Manchester.

Two boys showed enhancement of speech from attending the Speech Therapist at Dundee Royal Infirmary. One hypothyroid girl was transferred back to a mentally retarded school in Perth, as her deafness was slight and she was making no progress at school. Two children were transferred to ordinary schools in Angus, having reached reasonable education and speech.

Other Children — Recommendations :—

Linco Speech Trainer	...	...	...	...	...	1
Tonsil and/or Adenoid removal, myringotomy, grommet tube insertion, etc.	...	...	...	...	...	18
Commercial hearing aids	...	...	...	...	...	1
Medresco hearing aids	...	...	...	...	...	4
Ear level aids	...	...	...	...	...	4
Admission to Nursery School, Play-Group or Day Nursery	...	...	...	...	...	18
Speech therapy	...	...	...	...	...	30
Referral to Psychiatrist	...	...	...	...	...	9
To Dr Ingram's Neuro-Paediatic Unit, Edinburgh for further investigation	...	...	...	...	...	1
Awaiting Deaf School admission and receiving guidance from Deaf Teacher	...	...	...	...	...	8

Ex-Deaf School Children, now at ordinary school or left school :—

Five were reviewed. One boy was able to start a five-year course at secondary school, two others were coping fairly well and one was making less progress than one would have expected. One girl who had left school was successfully continuing a secretarial training at The James Little Training College, Blantyre.

School Health Service

1. General Statistics

Population of the Area 182,930
(Registrar General's Returns at 30/6/71)

1. Number of schools under Management of the Education Authority :

(a) Infant Schools	...	...	...	...	3
(b) Primary Schools	...	...	...	...	49
(c) Secondary Education :—					
(i) Three and Four Year Courses	...	...	...	...	5
(ii) Five and Six Year Courses	...	...	...	...	7
(d) Pre-Vocational Training	...	...	...	...	2
(e) Schools for Handicapped Children	...	...	...	...	4
(f) Junior Occupational Centre	...	...	...	...	1
(g) Nursery Schools	...	...	...	...	9
(h) Nursery Classes in Primary Schools	...	...	...	...	6

2. In receipt of grant from Education Authority and by arrangement for medical inspection :—

Primary and Secondary 1

3. Under Dundee College of Education Board of Governors and by arrangement for medical inspection :—

(a) Primary Schools	...	...	...	...	1
(b) Nursery Classes	...	...	...	...	2

4. Under Private Management and not under medical inspection :—

(a) Primary and Secondary Education	...	...	...	...	1
(b) Nursery Schools	...	...	...	...	—

Number of Children on registers 34,250

2. Sanitary Conditions in Schools

Description of School	Total No. of Schools	Open and no Washing Facilities	Covered and no Washing Facilities	No Washing Facilities
1. Number of Schools under management of the Education Authority—				
(a) Infant Schools	3	—	1 (33.0%)	—
(b) Primary Schools	49	2 (4.0%)	14 (28.5%)	—
(c) Secondary Schools —				
(1) Four Year Secondary Schools	5	—	—	—
(2) Six Year Senior and Comprehensive Schools	8	—	—	—
(d) Schools for Handicapped Children	4	1 (25.0%)	—	—
(e) Junior Occupational Centre	1	—	—	—
(f) Nursery Schools	9	—	—	—
(g) Nursery Classes in Primary Schools	6	—	—	—
2. In receipt of grant from Education Authority and by arrangement for Medical Inspection—				
Primary and Secondary	1	—	—	—
3. Under Dundee College of Education Board of Governors and by arrangement for Medical Inspection—				
(a) Primary School	1	—	—	—
(b) Nursery Classes	2	—	—	—
4. Under private management and not under Medical inspection—				
(a) Primary and Secondary Education	1	—	—	—
	90	3 (3.3%)	15 (16.6%)	—

The Education Authority is steadily implementing a decision made to modernise and generally improve sanitary facilities in elderly schools; this includes such improvements as heating of outside playground toilets and the provision of roofs where applicable in addition to the replacement of fittings and the provision of more where this was indicated.

Inevitably, some limitations are imposed by the problems of space but the most effective compromise has been sought in every such case.

Staff Statistics

Staff	Full-Time	Part-Time	Whole-Time Equivalent for School Health Services	Number of Children per Person
Medical Officers ...	7	4	5	6,000
Health Visitors and Nurses ...	45	22	20	1,365
Other Staff ...	14	—	6	5,000

3. Organisation and Administration**(a) System and Extent of Medical Inspection and Treatment**

The groups of children prescribed for systematic medical inspection for the year ended 31st July, 1971, were :—

1. Entrants, i.e. children born in 1966.
2. Children born in 1958.
3. Children born in 1964 (vision and hearing only).

Summary, in terms of sessions, of the Work of the Medical Officers.

Systematic Medical Inspection	432
For the purpose of Immunisation	84
For medical examination of pupils before final acceptance for residence in Belmont Camp School and other Special Examinations	192
Nursery Schools and Classes	144
Consultation Clinic Sessions	456
Sessions spent at Lectures, D.R.I. and other duties	229
Clerical Work	465

Special Examinations by Medical Officers, other than those included in Table I.

Children examined for Auchterhouse Holiday Home	306
Applicants for licences for employment	334
Examinations in Remand Home	298

Immunisation : Diphtheria and Tetanus :

No. Examined	2857
Primary Diphtheria/Tetanus	132
Boost Diphtheria/Tetanus	1817
Boost Diphtheria	8
Primary Tetanus	31

It should be explained that the discrepancy between the number examined and the number immunised will mainly include children whom the parents intend to be immunised by the family doctor as necessary.

Immunisation against Poliomyelitis : A total of 2,463 school children received appropriate immunisation against this disease; of these 74 completed a primary course, and 2,389 received a maintenance dose.

Tuberculosis B.C.G. Vaccination : This well established procedure follows a routine course each year. The figures for the session 1970/71 are :—

B.C.G. Vaccination was offered to	.....	3411 pupils
accepted by	.....	3079 "
refused by	.....	45 "
Heaf Test was given to	.....	2895 "
Positive reaction	.....	291 "
Negative reaction	.....	2562 "
B.C.G. Vaccination was given to	.....	2562 "

**Vaccination/Immunisation for School Children going on
Organised Continental Holidays**

	Boys	Girls	Total
Smallpox	156	183	339
Typhoid-paratyphoid	527	561	1088

During the year 16 schools were visited and the following table gives the statistical details.

Number Offered Rubella Vaccinations	...	...	1512
" Consents	...	...	1290
" Vaccinated	...	...	1274
" Absent	...	...	16
" To be Vaccinated by own G.P.	...	...	80
" Refusals	...	...	17
" Forms not returned	...	...	17
" Left School	...	...	23

(b) **Further Educational Establishments :** Regular visits were paid by one of the Medical Officers of the Department to give advice as necessary regarding the general health of students.

(c) **School Nursing and Arrangements for Follow-up :** A statistical summary of the work done by Health Visitors and School Nurses is shown in the following table :—

Sessions on Medical Inspection	.....	505
Sessions on Immunisation in Schools	.....	131
Additional Visits to Schools	.....	2961
Nursery Schools	.....	62
Sessions at Consultation and Treatment Clinics	.....	486

Visits to homes by Health Visitors

Of School Age Children in connection with Infectious Diseases	.....	307
Of School Age Children concerning T.B. infection and contact	.....	131
Of School Age Children for other reasons (including those following medical inspection in school)	.....	1658

(d) **Co-ordination with other Departments of the Authority, with voluntary associations and others concerned with the welfare of children :** As in previous years, a harmonious relationship has been

maintained with other departments and voluntary organisation, to our mutual benefit.

4. Audiometric Survey: The number of children with defective hearing on the register at 30th June, 1971, was as follows:—

				One ear failures	Both ear failures	Hearing Aids
Boys	...	...	...	36	30	11
Girls	...	...	...	34	43	12
				70	73	23

Hearing Aids: At present there are 76 hearing aids being used by school children in Dundee:—

Pupils of the School for the Deaf	...	...	...	53
Pupils in Primary and Secondary Schools	...	...	...	23
				<hr/> 76 <hr/>

AUDIOMETRIC SURVEY — SUMMARY FOR SESSION 1970/71

Audiometric Sweep Tests

	Number examined Boys	Number examined Girls	Number passing Boys	Number passing Girls	Number failing both ears Boys	Number failing both ears Girls	Number failing one ear Boys	Number failing one ear Girls
FIRST ...	1683	1712	1679	1709	1	1	3	2
Re-Tests ...	155	159	154	159	1	—	—	—
INTERMEDIATE ...	1698	1570	1691	1564	—	1	7	5
Re-Tests ...	93	99	92	99	—	—	1	—
Other Groups ...	81	113	33	54	24	38	24	21
Special Referrals ...	150	105	145	96	4	3	1	6
TOTAL SWEEPS ...	3381	3282	3370	3273	1	2	10	7
TOTAL RE-TESTS ...	479	476	424	408	29	41	26	27

Medical Treatment

Consultation Clinic Attendances

					Pre-School Children		School Children	
					Cases	Attendances	Cases	Attendances
(a) Minor Ailments								
(Consultation Clinic staffed by Dr)								
1970	...	...	...	...	40	80	1679	3489
1971	...	...	...	...	40	78	1938	3425
(b) Treatment Clinics								
(Dressing Clinics staffed by Nurse)					Not			
1970	...	...	...	...	treated	—	694	2990
1971	...	...	...	...	Would be referred to Dr at Child Welfare Clinic		1125	2041
(c) Scabies Treatment Centre								
(Mains Loan Baths)								
1970	...	...	...	...	41	81	277	649
1971	...	...	...	...	41	77	351	736
(d) Ear, Nose and Throat								
(Nelson Street Clinic)								
1970	...	...	...	...	4	—	94	109
1971	...	...	...	...	6	—	65	75
(e) Dundee Eye Institution								
(School Eye Service)								
1970	...	...	...	...	—	—	277	2061
1971	...	...	...	...	—	—	342	5298
(f) Orthoptic								
1970	...	...	...	...	62	489	203	1884
1971	...	...	...	...	121	839	283	2959

Dental Inspection and Classes: See separate report by the Chief Dental Officer.

Special Schools and Classes

(a) Fairmuir School (physically and mentally handicapped)

	Boys	Girls	Total
On roll at 31/7/70	195	142	337
Admitted during year	35	17	52
Removed from register	45	28	73
On roll at 30/6/71	185	131	316

(b) Coldside Occupational Centre

	Boys	Girls	Total
On roll at 31/7/70	62	49	111
Admitted during year	9	2	11
Removed from register	9	2	11
On roll at 30/6/71	62	49	111

MEDICAL EXAMINATION BY EACH MEDICAL AUTHORITY 1970

LOCAL AUTHORITY	ENTRANTS					LEAVERS								
	No. of Examinations		No. With Defects		Percentage With Defects	No. of Examinations		No. With Defects		Percentage With Defects				
	Boys	Girls	Boys	Girls		Boys	Girls	Boys	Girls	Boys	Girls			
Aberdeen Burgh	1,337	1,284	834	794	62.38	61.84	—	—	—	—	—	—
Dundee	1,502	1,527	765	715	50.93	46.82	1,363	1,293	547	607	40.13	46.95
Edinburgh	3,020	2,965	1,757	1,537	58.18	51.84	2,715	2,348	1,242	940	45.75	40.03
Glasgow	7,596	7,383	4,161	4,009	54.78	54.30	7,398	7,348	3,218	3,346	43.50	45.54
Aberdeen County	1,199	1,007	720	524	60.05	52.04	—	—	—	—	—	—
Angus	747	685	407	346	54.48	50.51	631	653	283	264	44.85	40.43
Argyll	370	351	237	178	64.05	50.71	333	350	200	176	60.06	50.29
Ayr County	3,090	2,915	1,598	1,401	51.72	48.06	2,600	2,618	1,003	1,052	38.58	40.18
Banff	350	337	242	188	69.14	55.79	375	341	171	148	45.60	43.40
Berwick	139	130	66	36	47.48	27.69	146	153	52	47	35.62	30.72
Bute	85	81	56	35	65.88	43.21	80	94	45	46	56.25	48.94
Caitness	288	281	135	100	46.88	35.59	214	191	68	80	31.78	41.88
Clackmannan	375	395	168	173	44.80	43.80	326	308	133	116	40.80	37.66
Dumfries County	701	628	488	410	69.61	65.29	661	629	421	403	63.69	64.07
Dunbarton	2,420	2,377	1,439	1,226	59.46	51.58	1,842	1,797	719	656	39.03	36.51
East Lothian	483	463	286	293	59.21	63.28	417	404	191	176	45.80	43.56
Fife	2,327	2,231	1,327	1,065	57.03	47.74	1,359	1,365	729	687	53.64	50.33
Inverness County	722	728	476	435	65.93	59.75	672	660	246	287	36.61	43.48
Kincardine	174	—	104	—	59.77	—	172	182	51	72	29.65	39.56
Kirkcudbright	313	320	187	155	59.74	48.44	162	156	46	72	28.40	46.15
Lanark	5,664	5,263	3,400	2,911	60.03	55.31	4,283	4,378	2,312	2,159	53.98	49.31
Midlothian	1,267	1,139	677	501	53.43	43.99	982	915	401	377	40.84	41.20
Moray and Nairn	566	573	240	248	42.40	43.28	447	448	177	143	39.60	31.92
Orkney	139	132	58	56	41.73	42.42	100	115	37	37	37.00	32.17
Peebles	83	80	43	31	51.81	38.75	60	87	21	23	35.00	26.44
Perth and Kinross	991	926	514	405	51.87	43.74	869	766	419	329	48.22	42.95
Renfrew	3,497	3,216	2,053	1,757	58.71	54.63	2,580	2,723	1,338	1,560	51.86	57.29
Ross and Cromarty	510	445	302	258	59.22	57.98	447	429	192	185	42.95	43.12
Roxburgh	315	318	189	160	60.00	50.31	279	284	142	142	50.90	50.00
Selkirk	150	172	68	46	45.33	26.74	158	144	52	49	32.91	34.03
Stirling County	1,770	1,714	1,038	919	58.64	53.62	997	1,188	438	461	43.93	38.80
Sutherland	105	101	71	67	67.62	66.34	84	105	41	62	48.81	59.05
West Lothian	1,056	1,003	568	479	53.79	47.76	760	879	288	401	37.89	45.62
Wigtown	225	197	139	109	61.78	55.33	177	142	91	75	51.41	52.82
Zetland	87	84	11	15	12.64	17.86	67	67	31	21	46.27	31.34
Scotland	43,663	41,451	24,824	21,582	56.85	52.07	33,756	33,560	15,345	15,199	45.46	45.29

TABLE II
DUNDEE — 1970
NUMBER AND RATES OF DEFECTS FOUND PER 100 CHILDREN
EXAMINED

Defect	INSTANTS			LEAVERS		
	Number	Rate	Girls	Number	Rate	Girls
Tuberculosis	01	.001	—	—	—	—
Molluscum	02	—	—	—	—	—
Verrucae	03	.011	.732	.015	.982	.018
Epidemiophytosis	04	.002	.133	.001	.065	—
Pediculosis	05	.015	.999	.043	2.816	.017
Scabies	06	.005	.333	.006	.393	.005
Other Infections	07	.007	.466	.009	.589	.005
Neoplasms	08	.001	.067	.003	.196	—
Gonitres	09	—	—	—	—	—
Cretinism	10	.001	.067	.001	.065	.001
Diabetes	11	—	—	—	—	—
Obesity	12	.004	.266	.007	.458	.007
Other Endocrine, Nutritional	13	.008	.533	.016	1.048	.021
Metabolic Disorder	14	.002	.133	.002	.131	.001
Anaemia and other Blood Disorders	16	.006	.399	.007	.458	—
Psychosis	17	—	—	—	—	—
Speech Disorder	18	.074	4.527	.035	2.292	.010
Eureasis etc.	19	.110	7.384	.076	5.076	.020
Behaviour Disorder	20	.007	.466	.012	.786	.006
Borderline Mental Retardation	21	.014	.932	.012	.786	.005
Mild Mental Retardation	22	.001	.067	—	—	—
Severe Mental Retardation	23	.006	.399	—	—	—
Other Diseases of Nervous System	27	.002	.133	.003	.196	.001
Inflammatory conditions of Eye	28	.005	.333	.001	.065	.011
Reflexive Error	29	.020	1.332	.022	1.441	.010
Strabismus	30	.014	.932	.016	1.048	.011
Colour Blindness	31	.035	2.330	.044	2.881	.006
Blindness both Eyes not Specified	32	—	—	—	—	—
Other Eye Conditions	34	.002	.133	—	—	—
Inflammatory Condition of Ear	37	.001	.067	—	—	—
Wax in Ear	38	.029	1.931	.032	2.096	.008
Other Conditions affecting Ear	39	.007	.466	.009	.589	.001
Deaf Mutism	40	.001	.067	.002	.131	.003
Deafness One Ear Partial or Other	41	.002	.133	.002	.131	—
Deafness One Ear or Both Ears	43	.001	.067	.001	.065	.001
Impairment of Hearing, One or Both Ears	44	—	—	—	—	—
Varicities	45	.013	.866	.008	.524	.011
Organic Disease of Heart and Blood Vessels	47	—	—	—	—	—
Atherosclerosis	48	.001	.067	.004	.262	.003
Diseases of Tonsils	49	.021	1.388	.008	.524	.028
Hay Fever, Other Diseases of Respiratory System	50	.099	6.591	.125	8.186	.023
Dental Causes	51	.004	.266	—	—	—
Other Disease of the Mouth	52	.070	4.660	.075	4.912	.044
Disease of Digestive System	53	.081	5.393	.111	7.269	.024
Hernia	54	.007	.466	.005	.327	.005
Kidney Disease	55	.004	.266	.001	.065	.001
Diseases of Male Genital Organs	56	.009	.599	.005	.327	—
Diseases of Female Genital Organs	57	.003	.200	—	—	—
Infestation of the Skin	58	—	—	.002	.131	—
Eczema	59	.004	.266	.004	.262	.004
Acne	60	.025	1.644	.026	1.703	.011
Other Diseases of the Skin	61	—	—	—	—	—
Cicatricioidrosis	62	.030	1.997	.030	1.965	.035
Spiral Curvature	63	.001	.067	.001	.065	.013
Pes Planus	64	.001	.067	.001	.065	—
Hallux Valgus	65	.042	2.796	.022	1.441	.010
Other Minor Deformities	66	—	—	—	—	—
Other Orthopaedic Conditions	67	.117	7.790	.104	6.811	.015
Spina Bifida	68	.002	.133	.002	.131	.001
Congenital Anomalies of Eye	69	.002	.133	.002	.131	—
Congenital Anomalies of Ear, Face and Neck	70	.003	.200	.001	.065	—
Congenital Anomalies of Heart	73	—	—	.001	.065	.001
Congenital Anomalies of Respiratory System	74	.003	.200	.001	.065	.003
Cleft Palate and Cleft Lip	75	.001	.067	—	—	—
Other Congenital Anomalies of Digestive System	77	—	—	.001	.065	—
Congenital Anomalies of Genital Organs	79	—	—	.001	.065	—
Congenital Anomalies of Urinary System	80	.009	4.594	—	—	—
Congenital Clubfoot	81	—	—	—	—	—
Other Congenital Anomalies of Limbs System	82	.008	.533	.006	.393	.006
Other Congenital Anomalies of Musculoskeletal System	83	.003	.200	.009	.589	.002
Congenital Anomalies of Skin, Hair, Nails	84	.004	.266	.002	.131	.005
Other and Unspecified Congenital Anomalies	85	.002	.133	.005	.327	.003
In Defined Conditions—	86	.001	.067	—	—	—
III-Defined Conditions	88	.006	.399	.011	.720	.002
Injuries	89	.013	.866	.025	1.637	.013
	90	.003	.200	.003	.196	.003

Examination	Age	Weight	Height	Head	Chest	Arm	Leg	Foot	Hand	Thumb	Index	Ring	Little	Other
1. General	10	100	140	48	70	24	36	10	18	2	2	2	2	2
2. Head	10	100	140	48	70	24	36	10	18	2	2	2	2	2
3. Neck	10	100	140	48	70	24	36	10	18	2	2	2	2	2
4. Thorax	10	100	140	48	70	24	36	10	18	2	2	2	2	2
5. Abdomen	10	100	140	48	70	24	36	10	18	2	2	2	2	2
6. Pelvis	10	100	140	48	70	24	36	10	18	2	2	2	2	2
7. Limbs	10	100	140	48	70	24	36	10	18	2	2	2	2	2
8. Skin	10	100	140	48	70	24	36	10	18	2	2	2	2	2
9. Senses	10	100	140	48	70	24	36	10	18	2	2	2	2	2
10. Mental	10	100	140	48	70	24	36	10	18	2	2	2	2	2
11. Speech	10	100	140	48	70	24	36	10	18	2	2	2	2	2
12. Vision	10	100	140	48	70	24	36	10	18	2	2	2	2	2
13. Hearing	10	100	140	48	70	24	36	10	18	2	2	2	2	2
14. Taste	10	100	140	48	70	24	36	10	18	2	2	2	2	2
15. Smell	10	100	140	48	70	24	36	10	18	2	2	2	2	2
16. Touch	10	100	140	48	70	24	36	10	18	2	2	2	2	2
17. Pain	10	100	140	48	70	24	36	10	18	2	2	2	2	2
18. Temperature	10	100	140	48	70	24	36	10	18	2	2	2	2	2
19. Moisture	10	100	140	48	70	24	36	10	18	2	2	2	2	2
20. Color	10	100	140	48	70	24	36	10	18	2	2	2	2	2
21. Consistency	10	100	140	48	70	24	36	10	18	2	2	2	2	2
22. Elasticity	10	100	140	48	70	24	36	10	18	2	2	2	2	2
23. Adhesiveness	10	100	140	48	70	24	36	10	18	2	2	2	2	2
24. Fragility	10	100	140	48	70	24	36	10	18	2	2	2	2	2
25. Durability	10	100	140	48	70	24	36	10	18	2	2	2	2	2
26. Resistance	10	100	140	48	70	24	36	10	18	2	2	2	2	2
27. Tensile	10	100	140	48	70	24	36	10	18	2	2	2	2	2
28. Compressive	10	100	140	48	70	24	36	10	18	2	2	2	2	2
29. Torsional	10	100	140	48	70	24	36	10	18	2	2	2	2	2
30. Shear	10	100	140	48	70	24	36	10	18	2	2	2	2	2
31. Impact	10	100	140	48	70	24	36	10	18	2	2	2	2	2
32. Fatigue	10	100	140	48	70	24	36	10	18	2	2	2	2	2
33. Recovery	10	100	140	48	70	24	36	10	18	2	2	2	2	2
34. Adaptability	10	100	140	48	70	24	36	10	18	2	2	2	2	2
35. Plasticity	10	100	140	48	70	24	36	10	18	2	2	2	2	2
36. Malleability	10	100	140	48	70	24	36	10	18	2	2	2	2	2
37. Ductility	10	100	140	48	70	24	36	10	18	2	2	2	2	2
38. Brittleness	10	100	140	48	70	24	36	10	18	2	2	2	2	2
39. Hardness	10	100	140	48	70	24	36	10	18	2	2	2	2	2
40. Softness	10	100	140	48	70	24	36	10	18	2	2	2	2	2
41. Toughness	10	100	140	48	70	24	36	10	18	2	2	2	2	2
42. Resilience	10	100	140	48	70	24	36	10	18	2	2	2	2	2
43. Stiffness	10	100	140	48	70	24	36	10	18	2	2	2	2	2
44. Flexibility	10	100	140	48	70	24	36	10	18	2	2	2	2	2
45. Elasticity	10	100	140	48	70	24	36	10	18	2	2	2	2	2
46. Plasticity	10	100	140	48	70	24	36	10	18	2	2	2	2	2
47. Malleability	10	100	140	48	70	24	36	10	18	2	2	2	2	2
48. Ductility	10	100	140	48	70	24	36	10	18	2	2	2	2	2
49. Brittleness	10	100	140	48	70	24	36	10	18	2	2	2	2	2
50. Hardness	10	100	140	48	70	24	36	10	18	2	2	2	2	2

EXAMINED
 BY
 NAME
 DATE

TABLE IV

**NUMBERS, AVERAGE HEIGHTS AND WEIGHTS BY EDUCATION
AUTHORITY AREA AND SCOTLAND, 1970**

LOCAL AUTHORITY	ENTRANTS			LEAVERS								
	BOYS Number	Height (Ins.)	Weight (Lbs.)	GIRLS Number	Height (Ins.)	Weight (Lbs.)	BOYS Number	Height (Ins.)	Weight (Lbs.)	GIRLS Number	Height (Ins.)	Weight (Lbs.)
Aberdeen Burgh	1,337	43.34	43.77	1,284	43.02	42.68	—	—	—
Dundee	1,502	42.65	41.79	1,527	42.50	40.98	1,363	60.68	96.43
Edinburgh	3,020	43.00	42.80	2,965	42.87	42.17	2,715	60.58	96.89
Glasgow	7,596	42.51	42.36	7,383	42.36	41.58	7,398	62.52	94.37
Aberdeen County	1,199	43.81	44.70	1,007	43.50	43.44	—	—	—
Angus	747	43.69	44.12	685	43.40	42.92	631	60.55	98.62
Argyll	370	44.47	45.24	351	44.44	44.86	333	61.02	98.74
Ayr County	3,090	43.37	43.36	2,915	43.10	42.40	2,600	60.65	99.06
Banff	350	43.25	43.29	337	43.04	42.40	375	60.47	99.27
Berwick	139	42.87	42.46	130	42.29	41.62	146	60.59	100.25
Bute	85	42.66	42.25	81	42.44	41.16	80	60.15	97.53
Caitness	288	43.81	44.47	281	43.28	43.07	214	62.58	106.64
Clackmannan	375	42.94	42.32	395	42.88	41.82	326	60.06	96.18
Dumfries County	701	43.75	43.09	628	43.44	42.04	661	60.64	97.77
Dunbarton	2,420	43.29	42.83	2,377	43.04	41.84	1,842	60.81	98.39
East Lothian	483	43.30	43.38	463	43.00	42.46	417	60.69	99.12
Fife	2,327	42.95	42.43	2,231	42.51	40.98	1,359	60.63	96.04
Inverness County	722	43.02	43.09	728	42.93	42.44	672	61.42	102.52
Kincardine	174	43.93	44.13	—	—	—	172	60.84	99.47
Kirkcudbright	313	43.94	44.26	320	43.28	42.36	162	61.85	103.90
Lanark	5,664	43.69	43.58	5,263	43.31	42.49	4,283	60.71	96.38
Midlothian	1,267	44.05	44.10	1,139	43.74	42.86	982	60.88	99.45
Moray and Nairn	566	43.39	43.30	573	42.81	42.00	447	61.22	100.61
Orkney	139	44.18	44.88	132	43.35	43.07	100	61.46	107.50
Peebles	83	43.98	44.82	80	43.80	42.96	60	61.55	102.37
Perth and Kinross	991	43.29	43.24	926	43.10	42.61	869	60.40	97.51
Renfrew	3,497	42.92	42.54	3,216	42.61	41.56	2,580	60.09	96.82
Ross and Cromarty	510	43.59	44.88	445	42.84	42.72	447	61.01	102.67
Roxburgh	315	43.14	43.11	318	42.40	41.30	279	60.52	95.07
Selkirk	150	42.71	40.87	172	42.54	39.83	158	60.41	95.66
Stirling County	1,770	43.84	44.69	1,714	43.50	43.37	997	60.90	100.16
Sutherland	105	44.40	47.12	101	43.66	44.10	84	60.95	99.62
West Lothian	1,056	43.13	42.40	1,003	42.93	41.61	760	60.68	97.57
Wigtown	225	44.07	43.75	197	43.68	42.95	177	61.40	96.37
Zetland	87	46.22	47.11	84	45.61	46.05	67	61.90	107.24
Scotland	43,663	43.22	43.13	41,451	42.93	42.11	33,756	61.08	97.19

(c) **Sight Saving School**

	Boys	Girls	Total
On roll at 31/7/70 ...	7	4	11
Admitted during year ...	—	1	1
Removed from register ...	1	—	1
On roll at 30/6/71 ...	6	5	11

(d) **School for the Deaf**

	Boys	Girls	Total
On roll at 31/7/70 ...	25	25	50
Admitted during year ...	6	3	9
Removed from register ...	3	4	7
On roll at 30/6/71 ...	28	24	52

TABLE V

NUMBERS, AVERAGE HEIGHTS AND WEIGHTS BY SOCIAL CLASS DUNDEE — 1970

SOCIAL CLASS	ENTRANTS				LEAVERS			
	Number	BOYS Height (Ins.)	Weight (Lbs.)	Number	GIRLS Height (Ins.)	Weight (Lbs.)	Number	GIRLS Height (Ins.)
1	8	44.63	43.75	7	43.43
						42.00		
2	11	42.91	39.64	15	42.33
						41.27		
3	70	42.46	41.34	90	42.61
						40.27		
4	34	42.68	42.44	23	42.00
						39.48		
5	12	43.17	43.33	8	43.00
						41.50		
OTHER OR NOT STATED	14	41.50	39.43	11	42.64
						39.82		
TOTAL	149	42.62	41.58	154	42.55
						40.36		
				135	60.52	95.30	128	60.96
						103.32		

TABLE VII

**NUMBER OF HANDICAPPED PUPILS OF SCHOOL AGE BY MAIN
DISABILITY AND LOCATION — 31st DECEMBER 1971**

DISABILITY	AT SPECIAL SCHOOL/CLASS		IN HOSPITAL		Home Teaching	No Education Provision Made	Total
	At Ordinary School	Excluding Occupation Centre Only	Other than Mental/MD	Mental/MD Only			
01 Deaf	0	21	0	0	0	1	22
02 Partially Deaf	15	6	0	0	0	5	26
03 Blind	0	0	0	0	0	3	3
04 Part Sighted	8	9	0	0	0	5	22
05 Other Sensory	1	0	0	0	0	1	2
11 Mental Defect—Educable	69	205	0	1	0	11	292
12 Mental Defect—Ineducable	3	9	0	2	0	32	104
13 Mental Defect—Not Trainable	0	9	0	9	0	4	23
14 Mental Defect—Undetermined	1	1	0	1	0	14	17
15 Psychosis	1	1	0	0	0	0	2
16 Maladjustment	12	19	0	0	0	5	37
17 Brain Damage—Cerebral Palsy	11	12	0	1	0	19	44
18 Other Brain Damage	1	4	0	0	0	1	6
19 Epilepsy	51	5	0	0	0	12	72
20 Spina Bifida/Hydrocephalus	5	8	0	0	0	17	30
21 Speech Defect	11	1	0	1	0	4	17
22 Other Neuro/Psy. Defect	4	2	0	0	0	6	12
31 Absence of Upper Limb(s)	1	0	0	0	0	2	3
33 Deformity of Upper Limb(s)	2	0	0	0	0	4	6
34 Deformity of Lower Limb(s)	5	0	0	0	0	9	14
35 Spinal Defect (Not Spina Bifida)	5	1	0	0	0	6	12
36 Paralysis	6	2	0	0	0	2	10
37 Orthopaedic	36	3	1	0	0	46	86
41 Heart Disease	54	1	1	0	0	20	76
42 Diabetes	17	1	0	0	0	2	20
43 Other Metabol	9	0	0	0	0	26	35
44 Cleft Palate	6	0	0	0	0	15	21
45 Asthma	30	3	2	0	0	20	55
46 Skin Conditions	0	0	0	0	0	3	3
47 Allergic Diseases	1	0	0	0	0	0	1
48 Other	33	7	0	1	0	17	58
TOTAL	398	330	71	16	0	312	1131

TABLE VI

**NUMBERS, AVERAGE HEIGHTS AND WEIGHTS BY NUMBER IN
FAMILY, DUNDEE — 1970**

NO. IN FAMILY	ENTRANTS				LEAVERS										
	BOYS Number	BOYS Height (Ins.)	Weight (Lbs.)	GIRLS Number	GIRLS Height (Ins.)	Weight (Lbs.)	BOYS Number	GIRLS Height (Ins.)	Weight (Lbs.)						
1	42.83	121	42.83	42.48	140	43.10	42.07	86	62.01	104.92	90	61.22	106.93
2	42.90	510	42.90	42.25	535	42.72	41.44	311	61.11	98.65	325	61.28	106.42
3	42.68	436	42.68	41.86	415	42.45	40.78	393	61.20	98.71	330	61.15	106.54
4	42.50	263	42.50	41.50	247	42.08	40.40	249	60.43	95.54	252	60.64	100.95
5	42.05	99	42.05	40.45	109	42.07	39.75	178	59.68	90.87	153	59.85	99.69
6	41.90	40	41.90	40.30	53	42.28	40.25	82	59.39	89.27	83	60.43	101.49
7	41.75	20	41.75	39.20	18	41.94	39.94	36	58.17	84.81	30	60.07	96.33
8	41.14	7	41.14	38.71	8	42.13	42.50	14	58.36	88.00	19	59.21	99.42
9	40.00	1	40.00	39.00	2	44.50	43.00	10	61.50	95.90	5	61.80	122.60
10	42.00	3	42.00	38.33	—	—	—	2	63.00	105.00	1	65.00	136.00
11	42.00	1	42.00	42.00	—	—	—	2	60.00	101.50	2	61.00	108.00
12	—	—	—	—	—	—	—	—	—	—	3	60.67	81.67
13	42.00	1	42.00	44.00	—	—	—	—	—	—	—	—	—

Dental Services

REPORT BY Mr N. A. WALKER

It is with pleasure that I submit the report on the work of the Dental Section for the year ending 31st July, 1971.

Staff : In addition to the Chief Dental Officer there are 9 Dental Surgeons, 10 Dental Surgery Assistants (one of whom is employed principally on Dental Health Education) and 1 Clerkess.

We have, unfortunately, just lost a dental surgeon to Renfrewshire, due to her husband moving to that area.

Premises : An attractive and well equipped new clinic was opened at Kirkton during the year and meets what has been a pressing need in that area. To meet an increasing demand in the Menzieshill area, portable equipment has been installed in the clinic there and is in part-time use. The growth of Whitfield is straining the resources of Fintry Clinic.

Dental Health Education : Efforts to create in the children and their parents an awareness of the need for oral hygiene go on at the chair-side daily in every surgery. Lectures on dental health and oral hygiene are given to all student nurses and illustrated talks are given to Mothercraft Classes. The five-year-old school entrants were given a dental health pack along with a talk by a dental surgery assistant who specialises in Dental Health Education.

The survey to evaluate the dental packs was completed during the year and we await the results of processing the data.

Routine Inspections : The numbers inspected during the year were Pre-School 1,492, School Children 28,616 and Expectant and Nursing Mothers 3,034.

Attendances for Treatment : Pre-School 881, School Children 14,996, Expectant and Nursing Mothers 837.

Fluoride : The use of a sodium fluoride mouth rinse is now the routine at the end of treatment. While this may be expected to achieve some measure of control over dental caries, the method is very much a second best to fluoridation of water supplies and can be applied only to those children for whom treatment is accepted. The vast majority of children in the vital pre-school years are denied the protection and benefits of fluoridation.

Thanks : We are much indebted to the Eastern Regional Hospital Board for the assistance and co-operation received from Dr Shearer and his staff of the Anaesthetic Department of Dundee Royal Infirmary and from Mr D. Munro, Orthodontic Consultant. Our thanks are tendered also to the staffs of the Ante-Natal Clinics at Dundee Royal

Infirmery and Maryfield Hospital, and to the Head Teachers and Teachers whose interest in the maintenance of dental health can be of great assistance.

British Dental Association Conference : One Dental Officer attended the Annual Conference of the British Dental Association in Eastbourne.

Two Dental Officers completed a Course on Periodontology.

**Local Authority Dental Services
(School and Maternity and Child Welfare)
Year 1970-71**

1. General Statistics	Aged 0 - 4 Years	Aged 5 - 17 Years or over	Ante-Natal and Post-Natal
Routine Dental Inspection	1,492	28,616	3,034
With Dental Defects	606	14,700	1,499
Accepting Treatment	450	6,363	482
Treated by L.A. Dental Officers	433	5,638	270
No. made Dentally Fit	563	5,388	182
Special and Emergency Cases	193	1,046	10
Attendances for Treatment	881	15,826	837

2. Number who were Inspected by the Dental Officers

Age	Systematic Inspection	Emergency Cases	Total
Under 3	201	30	231
3	544	49	593
4	747	114	861
	<hr/>	<hr/>	<hr/>
	1,492	193	1,685
	<hr/>	<hr/>	<hr/>
Age	Systematic Inspection	Emergency Cases	Total
5	2,912	111	3,023
6	2,844	121	2,965
7	2,839	118	2,957
8	2,736	128	2,864
9	2,791	162	2,953
10	2,879	139	3,018
11	2,725	84	2,809
12	2,331	66	2,397
13	2,226	46	2,272
14	2,091	40	2,131
15	1,290	20	1,310
16	581	8	589
17	371	3	374
	<hr/>	<hr/>	<hr/>
	28,616	1,046	29,662
	<hr/>	<hr/>	<hr/>
Ante-Natal and Post-Natal	3,034	10	3,044

3. Details of Treatment

(a) Fillings—					School	M. & C.W.
(i)	Permanent Teeth Filled				11,943	427
	Permanent Surfaces Filled				10,338	430
(ii)	Deciduous Teeth Filled				5,005	527
	Deciduous Surfaces Filled				5,253	519
(iii)	Crowns				6	1
(iv)	Root Treatment				3	—
(b) Extractions (not including orthodontic)—						
(i)	Permanent Teeth				1,372	338
(ii)	Deciduous Teeth				3,155	363
(iii)	Surgical				5	1
Administration of General Anaesthetic					1,758	249
Administration of Local Anaesthetic					1,564	77
Periodontal Treatment					1,233	112
Other Operations—						
Permanent Teeth					1,968	185
Deciduous Teeth					512	423
Dentures—						
Partial					53	28
Full					4	46
Repairs to Dentures					19	4
Radiographs—No. of Exposures					289	11

4. Orthodontic Treatment

No. of cases continued from previous year	101
New Cases	151
Cases Completed	112
Cases Discontinued	52
Cases Continuing at end of year	87
Attendances for Treatment	758
No. of Consultations with R.H.B. Orthodontist	72
No. of Diagnostic Examinations	152
No. of Cases Treated—	
(a) With Removable Appliances	43
(b) With Fixed Appliances	4
No. of Extractions—	
(a) Permanent Teeth	220
(b) Deciduous Teeth	183
(c) Surgical	43
Repairs to Orthodontic Appliances	8

Sanitary Department,
93 Commercial Street,
DUNDEE, DD1 2AQ.

**To The Honourable,
The Secretary of State for Scotland; and
The Lord Provost, Magistrates and Councillors —
The Local Authority of the City of Dundee.**

Madam and Gentlemen,

It is with pleasure that I comply with the obligation placed upon me by virtue of Section 87(10) of the Local Government (Scotland) Act, 1947, as read in conjunction with Local Health Authority Services Circular No. 18/1971, in submitting herewith for your information an Annual Report covering the work of the Sanitary Department for the year 1971, incorporating, so far as the interests of this department are concerned, all information requested by the Central Authority as specified and laid down in the aforementioned Circular. The report also contains certain additional statistical and other information relating to the City which has been shown from past experience to be of much general interest and usefulness on occasion for reference purposes.

As usual, I am extremely grateful to all members of the Corporation for their continued encouragement and support, and particularly does this apply to my Convener, Mrs Agnes Bell. Thanks are also due to the staffs of other Corporation departments for all the willing help and co-operation which they gave during the year as and when circumstances required, and to those Principal Officers of the Local Authority who have in one way and another contributed to the report. Warm appreciation of the excellent work done by my own staff can also be sincerely and justifiably expressed.

I hope that the report will prove interesting and informative to those who peruse it.

I am, Madam and Gentlemen,

Your obedient servant,

JOHN FOREMAN,

Chief Sanitary Inspector.

Staffing

At the time of writing, the approved establishment of the department is as follows :—

- Chief Sanitary Inspector
- Depute Chief Sanitary Inspector
- 4 Senior Inspectors
- 5 Assistant Senior Inspectors
- 8 Inspectors
- 4 Student Inspectors
- 2 Lady Food Hygiene Officers
- 10 Technical Assistants — 5 on a temporary basis for
Smoke Control Area survey work
- 1 Senior Clerical Assistant
- 4 Clerical Assistants
- 1 Senior Shorthand Typist
- 1 Shorthand Typist
- 1 Counter Attendant/Messenger

Owing to the continued shortage of qualified men and the absence, so far, of a suitable applicant for the job, there is still a vacancy for one Inspector.

Death-Rate : Density of Population and Acreage

The death-rate per 1,000 for 1971, as corrected, was 11.4, compared with 11.8 for 1970 and 12.3 for 1969.

The population, as estimated to the middle of 1971 by the Registrar-General, was 182,930.

The acreage of the City, excluding the foreshore, is 12,294, which works out at 14.88 persons per acre.

Burial Grounds and Cremation

The following are the numbers of interments which took place during 1971 at the various cemeteries within the City :—

Eastern Necropolis	461
Western Necropolis	340
Western Cemetery (Perth Road)	31
Barnhill Cemetery	171

At the Crematorium 1,938 cremations were carried out during the same period.

Rainfall

The total rainfall for 1971, as recorded at the official measuring station at Mayfield Hall, was 582.6 millimetres (22.9 inches), as against 771.6 (30.3) in 1970, 741.9 (29.2) in 1969 and 713.4 (28.1) in 1968.

The monthly figures are shown in the following table :—

January	73.8 millimetres (3.0 inches)
February	19.6 " (0.8 ")
March	33.7 " (1.3 ")
April	64.7 " (2.5 ")
May	74.7 " (3.0 ")
June	37.3 " (1.5 ")

July	109.2	„	(4.3	„)
August	46.5	„	(1.8	„)
September	12.3	„	(0.5	„)
October	42.1	„	(1.6	„)
November	51.9	„	(2.0	„)
December	16.8	„	(0.6	„)
	<hr/> 582.6	„	<hr/> (22.9	„)

This shows an average fall over the City of 48.5 millimetres (1.9 in.) per month, compared with 64.3 (2.5) for 1970, 61.8 (2.4) for 1969 and 59.4 (2.3) for 1968.

Sources of Water Supply — Other than Mains Supply

Details concerning well and spring waters which continue to be used within the City are as follows :—

Domestic purposes	1
Manufacture of aerated water	1
Riding School—Watering horses	1

Complaints Relating to Insanitary Conditions and Public Health Nuisances

The number of matters under this heading brought to the notice of the department during the year, generally by way of complaint, totalled 3,102, requiring 14,603 visits by the staff. In connection therewith, 3,144 intimations, verbal or written, were given to property owners, factors, and others responsible, requiring the removal of 3,751 causes for complaint.

The following are statistical details of the matters attended to :—

Choked and defective water closet basins, sinks, drains, etc.	972
Choked and defective rones and rainwater conductors	76
Leaking roofs	109
Defective chimneys	24
Internal disrepair of houses	589
Dilapidated refuse bins	54
Dirty bin stances	139
Dirty and verminous houses	276
Infestations of rats and mice	567
Dirty common stairs, passages and waterclosets	152
Miscellaneous	793
	<hr/> 3,751

Remedial action was carried out in the majority of cases without having to resort to the service of Statutory Notices, but when circumstances made this action necessary the work was completed in every case within the time limit laid down. In no instance, therefore, was it necessary to institute Court proceedings.

Attention given to repairs by the various building tradesmen was generally prompt, especially where damage to properties due to leaking pipes, roofs, drain chokages, etc. were giving rise to hardship and therefore matters of extreme urgency.

The usual regular use was made of the arrangement with the Public Works Department for the emergency clearing of drains which had become choked during week-end periods and were fouling public streets and footpaths, the cost of this service being recovered later from the owners of the premises involved.

On frequent occasions local legislation which enables the Corporation to carry out drainage repairs in default was used, mainly in connection with tenement properties where a number of owners share a mutual responsibility for carrying out the work.

As in previous years, numerous complaints were received regarding dampness and the formation of mould growth on the internal surfaces of walls in dwelling-houses. Invariably, condensation was found to be the cause of the trouble but it is often difficult to convince householders of this fact. In many such cases the installation of an electric extraction fan in the kitchen was advised since this appliance, when brought into use during periods of heavy cooking and clothes washing, is frequently very successful in preventing the moisture so produced from entering the affected rooms.

The dumping of discarded bedding and furniture in back courts and on vacant ground throughout the City was again a cause for concern, and the continued co-operation of the Cleansing Department in removing the offending materials was, once more, greatly appreciated. Since the introduction of the Civic Amenities Act in 1967, provision has been made for receiving those larger items of refuse at various points throughout the City. The situation of these depots and the operating times have been well advertised but in spite of this many anti-social members of the community prefer to ignore this facility and dump wherever the mood takes them.

Air Raid Shelters

To provide employment for building trade workers during the winter months the Secretary of State opened the door, with suitable financial incentives, for the removal of all the remaining air-raid shelters within the City boundary, and this work was commenced during November.

There will be no regrets at the disappearance of these eyesores from the landscape as they have been the cause of many complaints over the years and the source of many extremely insanitary and unhealthy practices.

Verminous and Dirty Houses and Persons

Bed-Bugs. On numerous occasions insects were brought to the department by worried householders believing that they had found bed-bugs in their dwellings and were relieved when informed that the specimen was some other relatively harmless insect. Bed-bug infestations can nowadays almost be said to be a thing of the past and, in fact,

only one such infestation was discovered during the year. The occupants of the dwelling had done their best to disinfest and get rid of the parasites but the root of the trouble was that infestation was occurring through the party walls of adjoining houses. Destruction of articles of bedding and furniture and the removal of floorboards, etc. were necessary in this case to ensure complete eradication.

Other Insect Pests. During 1971, effective treatment had to be provided by the staff at 276 premises (residential, commercial and industrial) to exterminate other anti-social insects such as fleas, lice, silverfish, earwigs, cockroaches, ants and various species of beetle.

Complaints concerning the invasion of dwellings in the new suburban estates by the garden pests — ants, earwigs, clover mites, etc. — are definitely on the increase. So much so that quite a lot of man hours are now having to be spent in the eradication of these insects by appropriate treatment with specific and specialised insecticides.

Dirty Houses. The number of houses found in this condition and dealt with during the year totalled 28. Advice, guidance and warnings to the occupiers resulted in effective cleaning and redecoration being carried out. In no case was it found necessary to institute legal proceedings. In a number of instances, however, regular revisits were made to ensure that improvement was maintained.

Verminous Persons. The attention of the department was necessary in regard to eight persons infested with body lice. The procedure adopted in such cases is for affected persons to be washed and treated at a Cleansing Station while bedding, furniture and personal clothing are being disinfested by the department's staff. Other Corporation departments sharing public health and environmental hygiene responsibilities are also invariably contacted so that any necessary social after-care can be arranged.

Whitewashing and Painting of Common Stairs and Passages

Each year sees fewer and fewer complaints being received under this heading, and this can no doubt be attributed to the progressive reduction in the number of tenement properties in the City. Notices requiring the cleaning and the carrying out of certain repair works are, of course, served as and when it is considered necessary but with so much development going on within the City at the present time and the life of many properties being in consequence so uncertain and somewhat limited it is to be regretted that, for obvious reasons, cleaning, painting, etc. requirements have to be ignored in many cases.

Back Courts, Areas, Footways, etc.

A continued cause for concern, both from the aesthetic and the risk to health points of view, is the insanitary condition which the back courts of many tenements are allowed to assume through failure of the householders to recognise their legal responsibility to keep such areas clean. Household refuse which is never cleaned up becomes strewn over the courts as a result of many forms of carelessness and a couldn't-care-less attitude.

Here again, of course, a very close co-operation with the Cleansing Department is maintained, particularly in trying to educate offenders by pointing out to them their legal obligations and the error of their ways.

Prevention of Damage by Pests Act, 1949

Part 1 of the Act, which relates to rats and mice, is administered by this department and while it was not found necessary to conduct any special survey within the City during the year, evidence of rodents was always looked for when the inspection of any land or premises was being undertaken for other purposes.

A total of 381 complaints was received during 1971 concerning rodent infestations, 214 relating to rats, 167 to mice, and in securing control and eradication of the pests 567 visits had to be paid to premises and areas involved.

A considerable number of the infestations relating to mice were found to be the result of occupiers of dwellings in condemned tenement properties leaving behind, when rehoused, partly emptied food packages and utensils containing cooking fats, etc. so that the rodents were conveniently allowed to feed and breed undisturbed. Infestation of adjoining buildings quickly followed.

Carelessness of this sort can no doubt, in many cases, be attributed to thoughtlessness more than anything else since the property the people are leaving is going to be demolished, but the extreme importance of the matter is highlighted by the fact that over 50% of the mouse population in the City has now inherited an immunity to the previously effective warfarin poison so that the employment of professional exterminators and the use of highly sophisticated poisons is becoming increasingly necessary and, of course, eradication of the rodents more and more difficult.

No such resistance in the rat population within this area has been encountered so far, however, and various infestations, mainly of a minor character, were dealt with successfully by private operators.

Perhaps it is as well to record that there are no rodent exterminators on the establishment of this department so that all work of extermination must be arranged privately.

The provisions of the Threshing and Dismantling of Stacks (Scotland) Regulations, 1950, continue to be brought to the notice of farmers at the appropriate time to ensure that the necessary measures are taken during threshing operations to prevent the escape of rodents.

The City Engineer kindly furnishes the information that during the year 16th May 1970 to 15th May 1971, rat repression measures continued in the City's sewerage system, especially in the older parts of the town, with satisfactory results. The sum of £3,600 was spent on this service.

Tents and Vans

The inspection and control of caravans being used for human habitation within the City resulted in 49 visits having to be made by the inspectorate.

The approved caravan site at South Baldovan continues to be well managed, the amenities provided are good, but the accommodation available is somewhat limited.

During visits to the City of circuses and carnivals, the approved sites were given the usual supervision to ensure, particularly, that sanitary conveniences were kept clean, that all refuse was removed daily, and that the risk of other environmental hazards was minimised.

Public Sewerage

Mr Alexander Mollison, B.Sc., A.M.I.C.E., A.M.I.Mun.E., City Engineer, is responsible for the construction and maintenance of the sewers within the City, and he kindly furnishes the following information relative thereto :—

“ During the year 16th May 1970 to 15th May 1971, 1.80 miles of new sewers were laid, making the total length of sewers in the City 305.40 miles.

The new mileage included drainage works on a Corporation Housing Scheme at Whitfield/Skarne Phase II.

Sewers were also laid for private housing estates at Barnhill 2nd Development, Dunavon Estate, Hazel Drive, Gotterstone Phase 2 and Nursery Road Phase 1.

A sewer diversion was also laid at Balfour Street for the University of Dundee, and Brackens outfall sewer extension for Brackens Housing Scheme was started.

Since 15th May 1971, additional sewers have been laid at Whitfield 7th Development, Gotterstone Phase 3, Nursery Road Phase 2 and Ninewells Housing Estate.

Brackens outfall sewer has also been completed and a sewer has been diverted at Douglas Road for an Old People's Hostel.

Barnhill Relief Sewer Stage 1 has been started. This involves the replacement of a 15" sewer, which runs along Dalhousie Road, by a sewer which ranges from 24" to 30".

During the year 1970-71 the sum of £40,961 was spent on maintenance and repair."

Cleansing Service

Mr William A. Lewis, M.I.P.C., the Superintendent of Cleansing, is the official responsible, in Dundee, for the work of refuse collection and disposal, street cleansing and control of public conveniences (excluding those in public parks) and he has kindly furnished the undernoted data relative to the work of his department :—

" Refuse Collection

In previous reports mention has been made of the continual rise in the volume of refuse collected, and a comparison between the tonnages handled in 1959/60 and 1971/72 illustrates the extent of this rise,

	Tons	Density	Total Volume
1959/60	58,000	4.1 cu.yds./ton	237,800 cu.yds.
1971/72	70,000	10 cu.yds./ton	700,000 cu.yds.

The collection and transportation of this light density refuse requires the use of vehicles equipped with apparatus to compact the refuse and a further four vehicles of the latest type were purchased during the year.

The use of large wheeled containers for the storage of refuse at multi-storey blocks has been extended and there are now 1200 installed throughout the City. There has also been a continued demand from industrial concerns for pick-up containers of 8-12 cu.yd. capacity and two special vehicles are fully employed on this service.

During the past few years it has been the Department's policy to supply plastic dustbins to new Corporation houses, these being cheaper and lighter in weight than conventional metal bins. Unfortunately this practice has had to be discontinued in certain areas because of the number which have been set on fire by children.

A detailed survey of the refuse collection service was carried out by members of the Corporation's Work Study Section and a plan prepared for each District which would enable a bonus of one-third of the basic wage to be paid to binmen and drivers, coupled with a reduction in staff.

The scheme was rejected initially by the binmen in view of the unemployment in Dundee, but after some delay agreement was reached and the scheme has been put into operation with encouraging results.

Refuse Disposal

The refuse tip at Westhall Quarry was used for the deposit of all the City's refuse during the year. At the end of 1971 the quarry has been two-thirds filled, and sufficient space for approximately one year remained.

In February 1972, consultants were appointed to advise on the construction of a new refuse incineration plant, and in May an application was made to Angus County Council for planning permission to infill Whitehouse Den, some 2 miles north of the Westhall tip, in order to provide tipping space to 1975 when the new incineration plant would be in operation.

The Refuse Plant at Marchbanks handled 14,491 tons, the pulverised refuse being used as cover to each day's tipping at Westhall.

Street Cleansing

An estimated 9,000 tons of street sweepings were removed from the City's 270 miles of streets in the year. This material is from many sources, spillage from builders' lorries, normal attrition of the road surface, sand spread on roads during winter and litter from thousands of careless people. Most of the grit is removed by the Department's 5 sweeping vehicles but the litter has to be collected by hand sweeping from pavements, hedges, from around parked cars, from shopping areas and from the large areas of open spaces in housing schemes. Over a hundred men are employed in the daily task of trying to keep the City clean in spite of the actions of so many of its citizens.

600 litter bins are provided at places where litter is most likely to be dropped, but this is only a partial solution to the problem. The litter-bug does not use the bins provided as is evidenced by the fact that these areas where street litter is particularly heavy are also places in which an adequate number of receptacles has been installed.

The Department also provides large refuse skips at each of the eight depots throughout the City, where the public can deposit garden refuse, car tyres, old furniture and the like at any time between 9 and 4 p.m. Monday to Friday. At Foundry Lane these facilities are available also on Wednesday evening and at week-ends. This service is being used to a greater extent each year but it has not reduced the amount of refuse of this nature which is still being dumped on convenient areas of waste ground. The new Dangerous Litter Act of 1971 increases to £100 the penalty for dumping this material, but this is unlikely to have a deterrent effect unless more offenders are brought to court. There were 8 prosecutions under the Litter Act in 1971.

The problem of abandoned cars is not yet serious in Dundee, only eight having to be collected during the year. Twelve old vehicles were brought to the Department by the owners.

Snow Removal

The period during which the Department had to carry out gritting operations due to ice or snow on the roads extended from 17th November, 1971 to 12th February, 1972, and between these dates gritting vehicles were used on 28 occasions. When road conditions warrant gritting, it is usual practice to cover the 100 miles of principal roads as soon as possible and thereafter continue to secondary roads, but on three occasions during the winter the gritting machines had to be used solely on main roads which had to be treated continuously over 2 or 3 days. This was due to unusually low temperatures alternating with falls of sleet or snow which covered the salt and sand already spread. 2,200 tons of salt and 1,056 tons of sand were used.

Public Conveniences

One new toilet at Kirkton Community Centre was completed during the year, but despite being situated alongside a Police sub-station, vandalism by children was so severe that arrangements had to be made to have it closed at the schools' lunch hour and after 4 p.m. Other toilets are under construction at Whitfield and Ardler shopping centres, and three in the planning stage at Queen Street, Broughty Ferry, Happyhillock and Macalpine Road. Two conveniences were planned for Douglas and Angus and Charleston housing schemes but protests were made by residents in the areas of the intended sites and construction has been postponed until acceptable sites can be found.

Staff	Administrative and Office Staff	11
	Foremen	10
	Drivers	47
	Binmen	114
	Street Sweepers	119
	Refuse Disposal Operators	14
	Workshops Staff, etc.	25
	Public Convenience Attendants	46

Vehicles

Refuse Collection Vehicles	38
Road Sweeping Machines	6
Gulley Emptying Machines	4
Tipping Lorries	3
Mechanical Shovels	5
Vans, etc.	10
Gritting Vehicles	12
Trailer Gritters	4
Electric Trucks	15
Caravan (Refuse Coup)	1
Fire Tender	1
Pulverised Refuse Vehicles	2
Skip Lift Trucks	2

Tonnage of Refuse

Household

58,361 tons (1970/71 : 56,157 tons 1969/70 : 55,903 tons)

Trade

12,545 tons (1970/71 : 11,678 tons 1969/70 : 11,415 tons)

Income from the collection and disposal of Trade Refuse and Special Loads £29,248 (1970/71 : £24,147 1969/70 : £21,590).

Cost of Refuse Collection	...	...	...	£322,034.00
Refuse Disposal	...	...	...	74,583.00
Street Cleansing	...	...	...	186,183.00
Public Conveniences	...	...	...	56,158.00

Income from Public Conveniences

(1) Use of Toilets	...	...	...	246.39
(2) Weighing Machines	...	...	...	55.50

£301.89

”

Housing

Visits under this heading during the year under review numbered 10,398 and action taken by the department over the same period towards reducing the number of the City's insanitary dwellings resulted in 123 such houses being made the subjects of individual Demolition and Closing Orders and Resolutions being passed by the Local Authority in respect of three more Housing Treatment Areas, namely Kinnaird Street No. 2, Kinnaird Street No. 3 and Kinnaird Street No. 4.

The Corporation's policy of dealing with unsatisfactory housing by the promotion of Housing Treatment Areas and limiting the use of Demolition and Closing Orders therefore followed very largely the same pattern as in the two previous years. Nevertheless, as can be

seen, the need still arose to deal as a matter of urgency with individual dwellings or properties where rapid deterioration had taken place and rehabilitation was out of the question.

Details of the 68 Demolition Orders and 55 Closing Orders applied are as follows :—

	HOUSES				Total
	1 room	2 rooms	3 rooms	4 rooms and over	
Dwellinghouses Closed by Demolition Order	2	59	6	1	68
Dwellinghouses Closed by Closing Order	6	35	14	—	55
	8	94	20	1	123

The above figures show an increase of 98 over last year's total of houses dealt with by way of Demolition and Closing Order procedure, and an end of the year check showed that only 32 of the 123 dwellings were still in occupation.

A survey of all dwellings so dealt with under Part II of the 1966 Act, that is to say, including those for previous years plus those in respect of which "Undertakings" had been accepted, revealed that 78 were still in occupation. The following are the details :—

	HOUSES				Total
	1 room	2 rooms	3 rooms	4 rooms and over	
Houses dealt with under Part II	3	59	11	3	76
Houses Closed Voluntarily after acceptance of Undertakings by Local Authority	1	—	1	—	2
	4	59	12	3	78

These 78 unfit houses were found to be occupied by 79 families, and in keeping with the statutory standard for overcrowding laid down in the Housing (Scotland) Act, 1966 :—

- 50 householders were found to require alternative accommodation of 1 room
- 21 householders were found to require alternative accommodation of 2 rooms, and
- 8 householders were found to require alternative accommodation of 3 rooms

The Corporation's re-housing policy, however, is based upon the standard — according to the number of bedrooms — laid down and recommended in D.H.S. Circular No. 149/44, and in this case the following were the numbers and sizes of houses needed to accommodate the families concerned :—

- 49 of 2 rooms (1 bedroom and living room)
- 23 of 3 rooms (2 bedrooms and living room)
- 7 of 4 rooms (3 bedrooms and living room)

The following table gives statistical details relative to the Housing Treatment Areas in the City in respect of which Resolutions have so far been made :—

				No. of Houses already Condemned as Unfit for Human Habitation		
				Total No. of Houses	Demolition Orders	Closing Orders
Ogilvies Road, etc.	...	...	...	*208	94	61
Catherine Street, etc.	...	...	...	141	38	29
Kinnaird Street No. 1	...	...	...	177	24	—
Kinnaird Street No. 2	...	...	...	171	12	—
Kinnaird Street No. 3	...	...	...	184	—	—
Kinnaird Street No. 4	...	...	...	186	35	14

* Includes 14 houses, the acquisition of which is necessary to secure the satisfactory development of the Area

The respective boundaries are as follows :—

- Ogilvies Road, etc. — The area bounded by Constitution Street, part of Rosebank Street and part of Lawson Place, and including the whole of the residential part of Ogilvies Road.
- Catherine Street, etc. — The area bounded by Dura Street, Eliza Street, Catherine Street and Harriet Street.
- Kinnaird Street No. 1 — The area bounded by Kinghorne Road, Carmichael Street, Kinloch Street and Kinnaird Street.
- Kinnaird Street No. 2 — The area bounded by Kinghorne Road, Kinnaird Street, Kinloch Street and Rosebank Street.
- Kinnaird Street No. 3 — The area bounded by Kinloch Street, Kinnaird Street, Stirling Street and Rosebank Street.
- Kinnaird Street No. 4 — The area bounded by Kinloch Street, Carmichael Street, Stirling Street and Kinnaird Street.

All six Resolutions provide that the Areas be dealt with in the manner laid down in sub-section (2) (a) of Section 4 of the Act, that is to say, by securing the demolition of all the buildings contained therein. At the same time, the Local Authority also made Orders under Section 16 of the Act prohibiting the occupation of the houses, after the sitting tenant leaves, except with their consent.

It was fully expected that by the end of the year, at least, the Compulsory Purchase Order in respect of the Ogilvies Road, etc. Area would have been confirmed by the Secretary of State but the long wait for this to happen continues. The trouble is an objection by the owners of an adjoining property, the requisition of which was considered necessary to secure the satisfactory development of the area.

The Compulsory Purchase Orders in respect of the Catherine Street, etc. and the Kinnaird Street No. 1 Areas have, however, been confirmed and confirmation of the Orders relating to the other three Kinnaird Street Areas is not expected to be long delayed.

At the end of the year it was found that 835 of the 1,067 houses in the Areas had already been vacated.

As was mentioned in an earlier report, Part IV of the 1969 Act made provision for a landlord to make application, should he so desire, to the local authority for a Qualification Certificate to enable him to have the existing controlled tenancy of a dwelling converted into a regulated tenancy, i.e., to have the controlled rent altered to what is referred to as a "fair rent" in terms of the Rent Act, 1965. The Rent (Scotland) Act, 1971, now in operation, has made no change in the provisions, merely consolidating, in relation to Scotland, various pieces of legislation, including Part IV of the 1969 Act.

To qualify for a Certificate the dwelling must satisfy the following conditions, viz.:— (1) be provided with all the standard amenities, (2) be in good repair, having regard to age, character and locality and disregarding internal decorative repair, and (3) meet the tolerable standard.

During the year under review 170 applications for Certificates were submitted to the Corporation and referred to this department for reports and recommendations, and of these a few had to be refused because the dwellings were not provided with all the standard amenities. A number were granted only after the owners had complied with requests to carry out certain repairs, mostly of a minor nature, and decisions regarding others were still awaiting such works being done. Several applications were withdrawn when the owners realised that their dwellings fell so far short of the requirements of the Act. In a number of instances tenants made representations to the Corporation that, in their opinion, their dwellings did not satisfy the qualifying conditions, and their claims were duly considered when final decisions were being made. Both tenant and applicant have, of course, a right of appeal to the Sheriff against a local authority's decision to grant or refuse a Certificate. Of the total of 379 applications for Qualification Certificates lodged with the Local Authority since the 1969 Act came into operation, 258 have so far been granted, 35 refused and 15 withdrawn, leaving a balance of 71 in abeyance.

Overcrowding

According to the City Factor's lists of families re-housed during the year some 1,272 of these were classified as cases of overcrowding. Relative thereto, it should perhaps be recorded here that assessments for overcrowding in the City are now made in accordance with the Corporation's Revised House Letting Regulations which are based upon the standard laid down and recommended in D.H.S. Circular No. 149/44 (referred to earlier in this report), namely, according to the number of bedrooms and allowing two persons per bedroom. Previously the assessments were made in accordance with the statutory standards laid down in the Housing (Scotland) Act, 1966.

Practically all housing applications for Corporation houses are referred by the City Factor to this department in order that the applicants' accommodation can be inspected and checked for overcrowding.

Housing Priority for Tuberculosis Cases

The situation in respect of families with a T.B. element where the Medical Officer of Health recommends priority in re-housing is shown in the following table :—

On list at 31st December, 1970	...	...	6
Added during 1971	...	...	4
			<hr/> 10
Removed during 1971 :			
Rehoused	...	...	8
Other reasons	...	...	1
			<hr/> 9
Remaining on list at 31st December, 1971			<hr/> <hr/> 1

Squatting

No cases of illegal occupation of condemned houses were discovered during 1971, the first time for many years that no such contraventions of the Housing Acts had been encountered. A few reports of squatters were received and investigated, but in each case it was found that the dwelling concerned had not in fact been dealt with under housing legislation. All such cases, however, were brought to the attention of the landlords so that action might be taken against the trespassers should this be their desire.

The policy of barricading condemned houses as soon as they are vacated by the legal occupiers was continued during the year, 158 such dwellings being treated in this way.

Housing (Repairs and Rents) (Scotland) Act, 1954 — Rent Act, 1957 Certificates of Disrepair

For the second successive year there were no applications from occupiers with controlled tenancies for Certificates of Disrepair, nor were any requests received for the revocation of such.

Houses in Multiple Occupation

As has been said before, this type of establishment presents no problem in Dundee. Nevertheless, any complaint or adverse report received is immediately investigated to ensure that the premises are satisfactory.

In determining the possible need for a direction by the Local Authority, the two main factors which generally have to be considered are overcrowding and communal facilities, the latter influencing considerably the number of lodgers to be permitted.

Only three establishments in the City are the subject of Direction Orders, and when visited by the inspectorate these were found at all times to be kept in a satisfactory manner.

Visits made under this heading numbered 24.

Tables Relating to Housing

The tables which follow provide some specialised statistical information on housing matters which, it is hoped, may be of interest, and of use on occasion for reference purposes.

DETAILS for the YEAR 1971

TABLE I
HOUSES PROVIDED

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
(a) New Houses Completed and Ready for Occupation—					
(i) By Corporation	—	601	1,228	336	2,165
(ii) By Scottish Special Housing Association	—	—	—	—	—
(iii) Erected by Private Enterprise	—	—	156	76	232
(b) Shops, etc. Converted into Houses, Houses Reconstructed and Houses Divided	—	3	14	100	117
Totals — Houses Gained	—	604	1,398	512	2,514

TABLE II
HOUSES CLOSED and VACATED in WHOLE or in PART

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
(a) Converted into Business Premises	—	3	2	6	11
(b) By Absorption into Other Houses	—	17	3	—	20
(c) Closed by Order, Demolition Order, etc.	19	157	32	3	211
(d) Comprehensive Development Areas	27	152	64	29	272
(e) Voluntarily Closed	—	1	44	40	85
(f) Prefabricated Temporary Houses	—	—	9	—	9
(g) Housing Treatment Areas	16	392	118	5	531
Totals — Housing Losses	62	722	272	83	1,139

TABLE III

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Net Gain
Net Result for 1971 is that there are 1,375 more houses available for human habitation than at 31st December, 1970	62	118	1,126	429	1,375
	Less	Less	More	More	

DETAILS for the PERIOD 1919 to 1971

TABLE IV
HOUSES PROVIDED

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
(a) Houses Completed and Available for Occupation—					
(i) By Corporation—including Trusts, etc.	591	7,112	21,007	8,383	37,093
(ii) By Scottish Special Housing Association	—	4	1,516	1,628	3,148
(iii) Government Erected Temporary Houses	—	—	1,550	—	1,550
(iv) Erected by Private Enterprise	15	101	3,123	4,701	7,940
(b) Shops, etc. Converted into Houses, Houses Reconstructed and Houses Divided	260	694	431	1,270	2,655
Totals — Houses Gained	866	7,911	27,627	15,982	52,386

This table shows a grand total of 52,386 houses gained — an average of 988 houses per annum.

TABLE V
HOUSES CLOSED and VACATED in WHOLE or in PART

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
(a) Converted into Business Premises	174	253	143	318	888
(b) By Absorption into Other Houses	305	307	191	560	1,363
(c) Closed by Order, Demolition Order, etc.	4,976	8,311	1,062	260	14,609
(d) Comprehensive Development Areas	543	1,919	642	316	3,420
(e) Voluntarily Closed	405	730	408	295	1,838
(f) Prefabricated Temporary Houses	—	—	1,550	—	1,550
(g) Housing Treatment Areas	16	392	118	5	531
Totals — Housing Losses	6,419	11,912	4,114	1,784	24,199

The total 24,199 houses closed is equal to an average annual loss of 457 houses.

TABLE VI

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Net Gain
Net Results for 53 years (1919 to 1971) is that there is an increase of 28,187 houses in the City, or an average annual contribution of 532	5,553	4,001	23,513	14,228	28,187
	Less	Less	More	More	

TABLE VII
Locs and details of Housing Schemes under Control at end of 1971 (from data supplied by the Chief Architect)

"A"					Number of Rooms Completed				
Ward	Scheme or Site	Type	1	2	3	4	5	6	7
1	Eastfield	Flat & Cot	—	—	188	—	—	—	—
	Cragghead	Flat & Cot	—	—	254	76	—	—	—
	Ans Street, Nos. 47/49	Tenement	—	—	18	—	—	—	—
	Cotton Road, Nos. 8/10	do	—	—	32	12	—	—	—
	Eastfield, Nos. 1/3	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 10/12	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 15/17	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 21/23	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 25/27	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 29/31	do	—	—	—	—	—	—	—
2	Emmeham Road, Nos. 33/35	Ten. Cot	8	28	83	12	—	—	—
	Emmeham Road, Nos. 37/39	Cottages	—	—	15	—	—	—	—
	Emmeham Road, Nos. 41/43	Tenement	—	—	48	—	—	—	—
	Emmeham Road, Nos. 45/47	do	—	—	66	22	24	—	—
	Emmeham Road, Nos. 51/53	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 55/57	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 59/61	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 63/65	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 67/69	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 71/73	do	—	—	—	—	—	—	—
3	Emmeham Road, Nos. 75/77	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 81/83	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 85/87	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 89/91	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 93/95	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 97/99	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 101/103	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 105/107	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 109/111	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 113/115	do	—	—	—	—	—	—	—
4	Emmeham Road, Nos. 117/119	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 121/123	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 125/127	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 129/131	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 133/135	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 137/139	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 141/143	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 145/147	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 149/151	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 153/155	do	—	—	—	—	—	—	—
5	Emmeham Road, Nos. 157/159	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 161/163	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 165/167	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 169/171	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 173/175	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 177/179	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 181/183	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 185/187	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 189/191	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 193/195	do	—	—	—	—	—	—	—
6	Emmeham Road, Nos. 197/199	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 201/203	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 205/207	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 209/211	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 213/215	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 217/219	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 221/223	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 225/227	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 229/231	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 233/235	do	—	—	—	—	—	—	—
7	Emmeham Road, Nos. 237/239	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 241/243	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 245/247	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 249/251	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 253/255	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 257/259	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 261/263	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 265/267	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 269/271	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 273/275	do	—	—	—	—	—	—	—
8	Emmeham Road, Nos. 277/279	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 281/283	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 285/287	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 289/291	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 293/295	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 297/299	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 301/303	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 305/307	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 309/311	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 313/315	do	—	—	—	—	—	—	—
9	Emmeham Road, Nos. 317/319	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 321/323	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 325/327	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 329/331	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 333/335	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 337/339	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 341/343	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 345/347	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 349/351	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 353/355	do	—	—	—	—	—	—	—
10	Emmeham Road, Nos. 357/359	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 361/363	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 365/367	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 369/371	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 373/375	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 377/379	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 381/383	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 385/387	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 389/391	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 393/395	do	—	—	—	—	—	—	—
11	Emmeham Road, Nos. 397/399	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 401/403	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 405/407	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 409/411	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 413/415	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 417/419	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 421/423	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 425/427	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 429/431	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 433/435	do	—	—	—	—	—	—	—
12	Emmeham Road, Nos. 437/439	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 441/443	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 445/447	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 449/451	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 453/455	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 457/459	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 461/463	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 465/467	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 469/471	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 473/475	do	—	—	—	—	—	—	—
TOTALS									

"B"					Number of Rooms Completed				
Ward	Scheme or Site	Type	1	2	3	4	5	6	7
1	Emmeham Road, Nos. 477/479	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 481/483	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 485/487	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 489/491	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 493/495	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 497/499	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 501/503	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 505/507	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 509/511	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 513/515	do	—	—	—	—	—	—	—
2	Emmeham Road, Nos. 517/519	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 521/523	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 525/527	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 529/531	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 533/535	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 537/539	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 541/543	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 545/547	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 549/551	do	—	—	—	—	—	—	—
	Emmeham Road, Nos. 553/555	do	—	—	—	—	—	—	—
TOTALS									

GRAND TOTALS — "A", "B" and "C"

DETAILS — GENERAL
TABLE VIII

Loci and details of houses in course of construction by the Corporation at end of 1971 (from data supplied by the Chief Architect)

Scheme or Site	Type	Apartments						Wards											
		1	2	3	4	5	6	1	2	3	4	5	6	7	8	9	10	11	12
Whitfield																			
5/6th Dev. Phase 2	Flat. & Cot.	—	—	163	73	—	—	—	—	—	—	—	—	—	—	—	236	—	—
7th Dev.	Flat. & Cot.	—	8	122	53	—	—	—	—	—	—	—	—	—	—	—	183	—	—
Skarne Phase 2	Flat. & Mais.	—	86	147	33	—	—	—	—	—	—	—	—	—	—	—	266	—	—
Brackens 1st Dev.	Flat. & Cot.	—	80	99	28	—	—	—	—	—	—	—	—	207	—	—	—	—	—
Mill of Mains	Flat., Cot. & Mais.	—	18	30	62	—	—	—	—	—	—	110	—	—	—	—	—	—	—
Maxwelltown Phase 3b	Flat. & Mais.	—	11	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	26
Craigie Drive 4th Dev.	Flat. & Cot.	—	76	90	52	—	—	218	—	—	—	—	—	—	—	—	—	—	—
Ardler 7th Dev.	Flat.	—	44	67	—	—	—	—	—	111	—	—	—	—	—	—	—	—	—
Kirk Street 2nd Dev.	Flat.	—	—	91	39	—	—	—	—	130	—	—	—	—	—	—	—	—	—
TOTALS		—	323	809	355	—	—	218	—	241	—	110	—	207	—	—	685	—	26

TABLE IX
DWELLINGHOUSES DEMOLISHED during 1971

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
(a) Dwellinghouses that had been Closed by Order, Demolition Order, etc.	126	403	38	14	581
(b) Houses that had been Voluntarily Closed	6	12	11	2	31
(c) Prefabricated Temporary Houses	—	—	9	—	9
(d) Houses in Comprehensive Development Areas	27	165	54	28	274
(e) Street Widening	—	58	24	11	93
TOTALS	159	638	136	55	988

In addition to the above, 107 shops and other premises were demolished.

TABLE X

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
Houses improved during 1971 after plans had been submitted to and approved by the Buildings Authority	—	54	64	17	135

TABLE XI

Other particulars from Department's Records

1. Estimated Total Number of Houses in City and Sanitary Facilities thereanent :—

Total number of houses	72,905
Number with internal water supply	72,901 or 99.9%
Number with internal water closet	61,260 or 84%
Number with shared outside water closet	11,565 or 15.8%
Number with internal bath	51,869 or 71.2%
Number without bath	21,036 or 28.8%

2. Houses with External Water Supply :—

Ward	No. of Houses	ROOMS				WATER SUPPLY On Stairs, Landings, etc.	In Courts, Rural Areas, etc.
		1	2	3	4 and over		
1	3	2	1	—	—	3	—
8	1	—	—	1	—	—	1
TOTALS	4	2	1	1	—	3	1

The 4 houses recorded above are Voluntarily Closed under the Housing Acts although still occupied.

3. Position regarding Privies and Chemical Closets :—

WARD	Conveniences	Houses SERVING Other Premises
8	1	1
10	1	1
11	1	1
	<u>3</u>	<u>3</u>

The 3 conveniences shown above are classified as follows :—

Privies	2	}	Serving Houses
Chemical Closets	1		

The 3 houses recorded are the subjects of Closing, etc. Orders and will not be relet when the present occupiers remove.

Schools

The Director of Education, Mr James Carson, M.A., furnishes the following information relative to his Department.

“ School Building in Dundee During 1971/72

1 Projects Completed

Lochee Primary School
Mill of Mains Primary School — 1st Phase
Foggyley Nursery School

Under Construction

St. Saviour's Roman Catholic High School
Craigiebarns Nursery School
Fintry No. 2 Nursery School
Kirkton No. 2 Nursery School
Downfield Primary School Extension
Dens Road Primary School Modernisation
St. Mary's Infant School Extension and Modernisation
Linlathen High School Games Complex
Dens Road Nursery Unit

Planning Stage

Whitfield High School
Mill of Mains Primary School — 2nd Phase
Fairmuir School Replacement
Blackshade Primary School Extension
Kellyfield Primary School
Our Lady's Primary School
Rosebank Primary School Replacement
Grove Academy Replacement

2 FURTHER EDUCATION

Planning Stage

Additional Further Education College
Students' Hostel Accommodation
Students' Union for College of Commerce

3 YOUTH AND COMMUNITY PROVISION

Projects Completed

Kirkton Community Centre

Under Construction

Midmill Hall Extension

Planning Stage

Ardler Community Centre
 Fintry Community Centre Extension
 Fintry Community Centre No. 2
 St. Saviour's Community Wing
 Linlathen Community Wing
 St. John's Community Wing
 Grassy Beach Water Sports Centre
 Lochee Neighbourhood Centre "

Atmospheric Pollution

The seven atmospheric pollution measuring stations continued in operation during the year at the undernoted sites :—

STATIONS			
No.	Name	Site	Instruments
2.	Macalpine	West King's Cross Hospital, Macalpine Road.	Deposit Gauge and Lead Peroxide Instrument.
3.	Cleington	Maryfield Hospital, Mains Loan.	do.
5.	Mayfield	Mayfield Hostel, 169 Arbroath Road.	do.
7.	Constitution	Constitution Road Clinic, 55 Constitution Road.	Daily Smoke Filter and SO ₂ , (Volumetric) Apparatus.
8.	Balgay	Royal Victoria Hospital, Jedburgh Road.	Deposit Gauge and Lead Peroxide Instrument.
10.	Craigie	Craigie House Residential Home, Southampton Road.	do.
11.	Commercial	Sanitary Department, 93 Commercial Street.	Daily Smoke Filter and SO ₂ , (Volumetric) Apparatus.

The number allocated to each station is that given by the Air Pollution Division of Warren Spring Laboratory who, under the auspices of the Department of Trade and Industry and in collaboration with local authorities and other co-operating bodies, continue to investigate the problems of atmospheric pollution on a National basis.

A total of 164 visits were made to the stations during the year for the purposes of supervision and the changing over of equipment, etc.

Deposit Gauges and Lead Peroxide Instruments

The results for the year are shown in the following tables :—

Station	Deposit Gauges	Lead Peroxide Instruments
	Average Monthly Total Solid Deposit (Tons/sq. Mile)	Daily Average Concentrations of Sulphur Dioxide in Arbitrary units (milligrammes of SO ₂ per 100 sq. centimetres per day)
No. 2 " Macalpine "	10.68	0.54
No. 3 " Clepington "	8.49	0.79
No. 5 " Mayfield "	8.85	0.40
No. 8 " Balgay "	5.61	0.37
No. 10 " Craigie "	9.17	0.36

The foregoing Total Solid Deposit figures are representative of the following :—

TONS DEPOSIT			
PER MONTH		PER ANNUM	
Per Sq. Mile	Over City as a Whole	Per Sq. Mile	Over City as a Whole
8.56	164	102.72	1,968

Comparisons of results obtained with those from previous years are shown below :—

YEAR	DEPOSIT GAUGES		LEAD PEROXIDE INSTRUMENTS
	Average Monthly Total Solid Deposit in Tons Per Sq. Mile	Over City as a Whole	Mean Daily Average Concentration of SO ₂ in Arbitrary Units (mgms. of SO ₂ /100 sq. cms./day)
1958	12.33	236	0.60
1959	11.13	213	0.64
1960	10.41	199	0.66
1961	8.6	165	0.57
1962	8.02	154	0.58
1963	9.37	179	0.55
1964	7.8	149	0.57
1965	8.36	160	0.48
1966	9.63	184	0.55
1967	8.1	155	0.59
1968	8.16	156	0.57
1969	9.22	177	0.55
1970	9.01	173	0.55
1971	8.56	164	0.49

It is pleasing to note that the average solid deposit and also the mean daily average concentration of sulphur dioxide were encouragingly less than those for 1970.

Once again, however, vandalism proved a problem. The smashing of a collection bowl and the belated delivery of a replacement meant that figures for solid deposit during the months January to May were not obtained at one of the stations.

Daily Smoke Filter and Sulphur Dioxide (Volumetric) Apparatus

The Daily Mean Concentrations of Smoke and Sulphur Dioxide recorded at Stations Nos. 7 and 11 were as follows :—

MONTH	No. 7 " CONSTITUTION "					
	SMOKE (Concentration in microgrammes per cubic metre)			SO ₂ (Concentration in microgrammes per cubic metre)		
	Lowest Value	Highest Value	Average Value	Lowest Value	Highest Value	Average Value
January	8	170	59	50	178	114
February	4	108	42	29	187	106
March	8	64	30	49	127	86
April	8	67	23	28	139	82
May	2	59	21	49	181	94
June	5	23	12	14	99	53
July	3	40	13	34	101	65
August	4	35	14	20	108	67
September	4	61	21	17	92	52
October	4	138	33	29	188	87
November	9	85	35	17	193	84
December	6	185	43	50	201	102
During the Year	2	185	29	14	201	83

MONTH	No. 11 " COMMERCIAL "					
	SMOKE (Concentration in microgrammes per cubic metre)			SO ₂ (Concentration in microgrammes per cubic metre)		
	Lowest Value	Highest Value	Average Value	Lowest Value	Highest Value	Average Value
January	10	176	65	86	406	192
February	4	130	43	49	289	130
March	4	64	32	56	367	166
April	4	44	21	49	215	106
May	5	56	21	44	219	101
June	2	29	13	37	111	65
July	3	38	15	37	166	82
August	5	36	16	30	158	78
September	9	69	26	31	148	87
October	5	161	47	32	214	108
November	12	105	36	42	230	136
December	17	204	46	22	282	142
During the Year	2	204	32	22	406	116

Comparisons of the average results obtained during 1971 with those for previous years are shown below :—

YEAR	SMOKE FILTERS Daily Mean Smoke Concentration (Microgrammes/cu. metre)			SO ₂ APPARATUS Daily Mean SO ₂ Concentration (Microgrammes/cu. metre)		
	Lowest Value	Highest Value	Average Value	Lowest Value	Highest Value	Average Value
1959	15	1,443	213	0	403	77
1960	22	1,663	213	3	326	92
1961	15	1,102	164	6	343	83
1962	11	1,010	132	13	304	86
1963	7	681	110	0	379	98
1964	3	614	84	0	371	110
1965	8	435	77	14	391	94
1966	5	435	82	0	317	78
1967	7	253	62	0	281	77
1968	3	296	62	13	241	76
1969	4	256	47	6	309	87
1970	2	205	34	20	389	101
1971	2	204	31	14	406	100

Here again, it is pleasing to be able to record falls in average figures over those for 1970, and in particular it is interesting to note that the average for smoke concentrations, at 31 microgrammes per cubic metre of air, was only 14.5% of the average concentration recorded in 1959 when measurement with this type of apparatus began — ample proof, if such is needed, of the progress made in cleaning the air of the City.

The average sulphur dioxide concentration was, at 100 microgrammes per cubic metre, only slightly below the figure for 1970, and once more the highest concentrations were recorded at Station No. 11 which, as has been mentioned before, being located in the central area of the City, is subject in no small way to the influence of fumes from vehicular traffic. It ought to be appreciated, of course, that at the present stage of scientific knowledge, and the progressive increase in vehicular traffic, the use of oil as a heating fuel, etc., spectacular reductions in sulphur dioxide concentrations cannot be expected.

The graphs which follow give an interesting indication of the seasonal fluctuations which occur and highlight, in particular, the very considerable reduction which has taken place in the smoke content of the air of the City since 1959 :—

Before leaving the subject of atmospheric pollution it can now be reported that arrangements are in hand to discontinue by the end of 1972 the operation of all five stations equipped with a deposit gauge and a lead peroxide instrument, as well as Station No. 7, "Constitution", which is fitted with volumetric apparatus.

As from 1st January, 1973, five new stations, each provided with a smoke and sulphur dioxide (volumetric) unit, will become functional at certain of the City's educational establishments — most probably Menzieshill High School, Lawside Academy, Craigie High School, Grove Academy and Seymour Lodge. Science/chemistry teachers and scholars will take an active part in the project and be responsible for the weekly exercise of replacing the filter papers, carrying out the chemical titrations, etc. The results obtained will be recorded and sent to this department for checking and onward transmission to Warren Spring Laboratory to be included in the National survey.

In the selection of sites for the new stations due consideration was given to the problem of obtaining results representative of conditions over the City as a whole and it is hoped that this will be achieved when the five stations mentioned begin to function in conjunction with Station No. 11, "Commercial", which will continue to operate.

One reason for the changes is that, as Warren Spring Laboratory has indicated, the volumetric apparatus provides an accurate measurement of both the smoke and sulphur dioxide content of a specific volume of air and therefore facilitates a much more correct and realistic assessment of the degree of pollution. The other influencing factor is the continued vandalism which goes on at some of the stations equipped with deposit gauge and lead peroxide instruments which, of necessity, are located outside in exposed and vulnerable positions.

The deposit gauges and lead peroxide instruments which will have become surplus to requirements will, of course, be retained for use in the future when any localised sources of pollution are having to be measured and investigated.

Clean Air Acts, 1956 and 1968

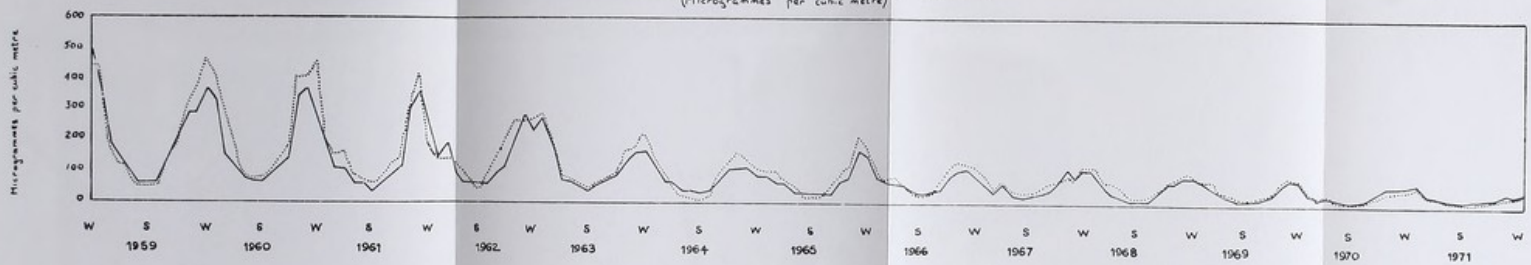
Section 1 of the 1956 Act (Dark Smoke Emission from Chimneys); Section 16 of the 1956 Act (Smoke Nuisances); Section 1 of the 1968 Act (Dark Smoke Emission from Industrial or Trade Premises, otherwise than from a Chimney).

Particulars of complaints lodged with the department and contraventions discovered and dealt with under these Sections are detailed below :—

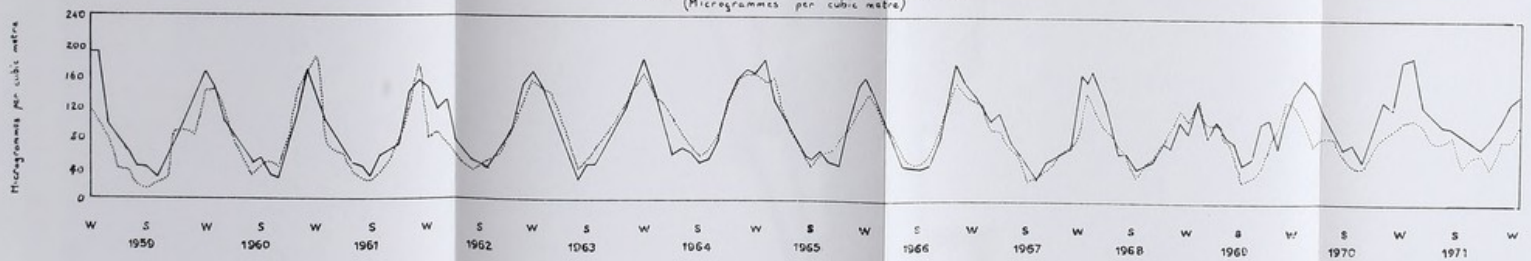
	Section 1 of the 1956 Act	Section 16 of the 1956 Act	Section 1 of the 1968 Act
Complaints received	29	34	19
Contraventions discovered by staff during			
routine inspections	42	7	15
Total complaints/contraventions	71	41	34
Matters remedied	63	35	30
No action necessary	8	6	4

STATIONS No 6 'CAIRD' / No 11 'COMMERCIAL' AND STATION No 7 'CONSTITUTION'

AVERAGE DAILY MEAN SMOKE CONCENTRATION
(Microgrammes per cubic metre)



AVERAGE DAILY MEAN SO_2 CONCENTRATION
(Microgrammes per cubic metre)



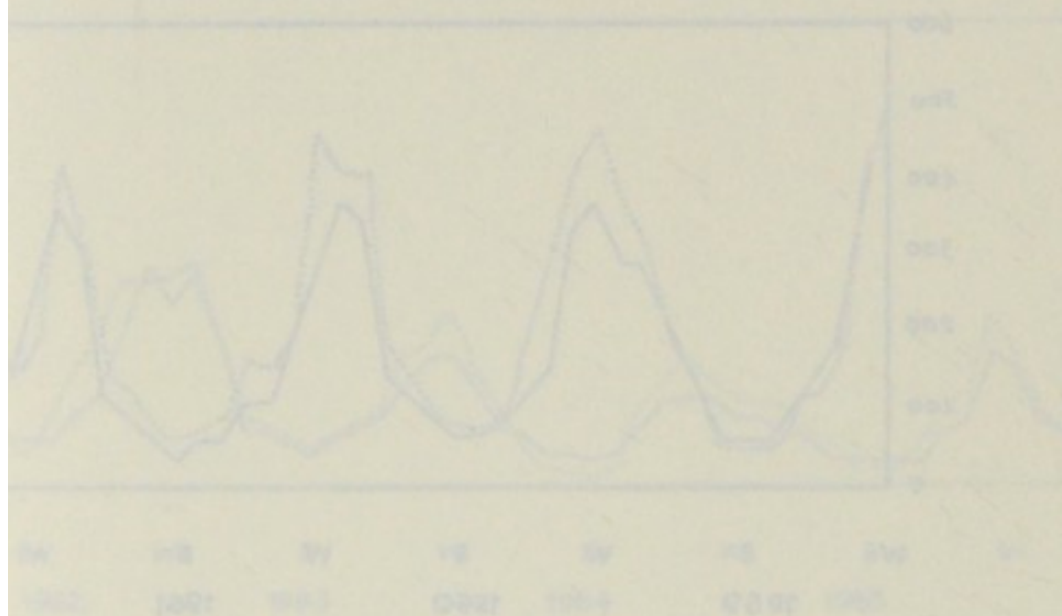
S SUMMER

W WINTER

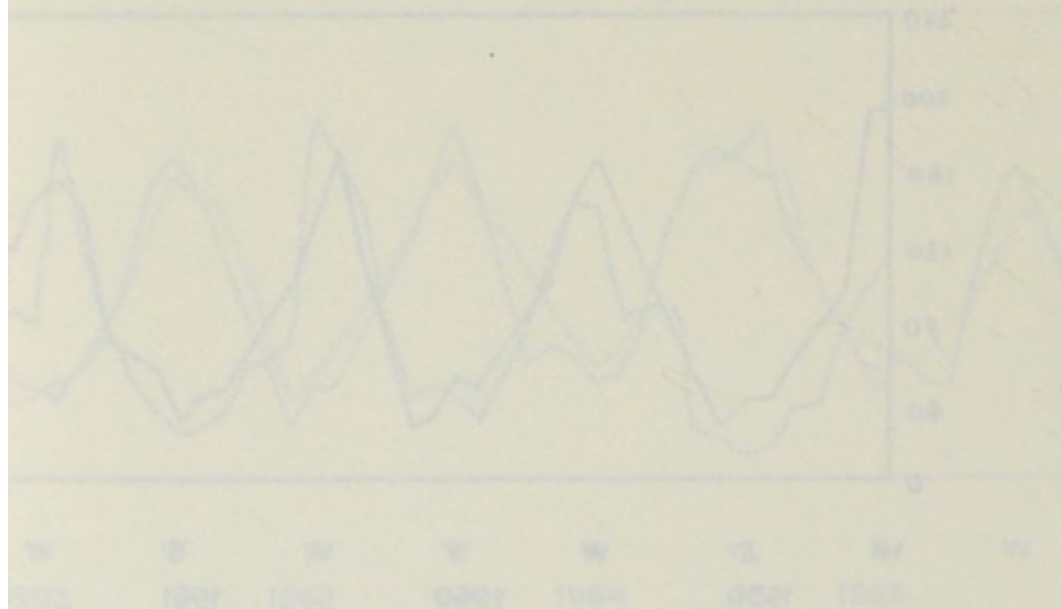
— STATION No 6 'CAIRD' (January 1959 to March 1967) and
STATION No 11 'COMMERCIAL' (April 1967 onwards)
..... STATION No 7 'CONSTITUTION'

STATIONS 10, 4, 6, 10, 10 / 10, 11, 10, 10, 10, 10, 10, 10

AVERAGE DAILY MEAN SMOKE CO.
(MEASURED PER HOUR)



AVERAGE DAILY MEAN SO₂ CO.
(MEASURED PER HOUR)



STATION 10, 4, 6, 10, 10 / 10, 11, 10, 10, 10, 10, 10, 10

STATION 10, 4, 6, 10, 10 / 10, 11, 10, 10, 10, 10, 10, 10

In connection therewith, some 503 visits of investigation, including 30 to industrial and other large boiler plants, had to be made by the inspectorate. In addition, 50 official "observations" of one hour's duration or longer were carried out on industrial chimneys to ascertain if the smoke emitted kept within, or exceeded, the periods prescribed in the Dark Smoke (Permitted Periods) (Scotland) Regulations, 1958.

A total of 10 Statutory Notices were issued in respect of contraventions of these Sections — 3 relative to contraventions of Section 1 of the 1956 Act and 7 concerning contraventions of Section 1 of the 1968 Act. Other contraventions were resolved by verbal warnings to offenders.

As the above information indicates, of course, a few of the matters which were the subject of complaint did not warrant official action. For example, in some instances the smoke emissions from chimneys complained of were found to be within the prescribed limits, while in others where a certain amount of smoke was being produced by the burning of garden refuse, the circumstances were such that nuisance did not arise. In a few cases relating to the burning of waste material, investigations revealed that the disposal of old timber at demolition sites was being carried out under proper supervision and that dark smoke was not being produced nor nuisance caused.

In several instances of excessive smoke emission from chimneys the cause was found to be, as is so often the case, the misuse of the manual controls of mechanical stoking equipment; in others, temporary faults which had developed were quickly remedied on representations being made to the appropriate quarters.

Investigation of complaints of excessive emissions from the factory chimneys of two firms revealed that in each case the boiler units, one no longer necessary as a steam raising installation, had been used to burn trade waste, a practice which was immediately discontinued in both cases.

Householders in the vicinity of a foundry in the northern part of the City will no longer have reason to complain of the fumes from the cold blast cupolas which operated thereat. Welcome as this development may be, however, it is regrettable to have to report that this was occasioned by the closure of the foundry and the loss of much needed employment.

Complaints of grit nuisance were received by the department towards the end of the first quarter of the year, and subsequent investigation showed that the grit consisted of fine particles of unburnt coal originating from the chimney serving a battery of coal-fired boilers. The last of a somewhat dated stock of coal with a high fine content was being used prior to the boilers being closed down for conversion to oil burning, and this was the cause of the trouble.

Section 3 of the 1956 Act. 241 check visits were made to boiler installations in respect of which notice of proposal to install as required by sub-section (3) of this Section had been received.

New Installations of Note Completed during the Year under review are summarised in the following table :—

Nature of Premises			New Furnace/ Boiler Installs.	Adaptations, etc. to Existing Boiler Plant	Type of Fuel			Type of Stoker, Burner, etc.	Remarks
Factories	Shops, Offices, etc.	Other Premises			Solid Fuel	Oil	Gas		
17	9	67	115	—	1	49	65	Automatic	New and reconstructed premises.
3	—	11	21	—	3	16	2	do.	Replaced 21 boiler units — 10 hand-fired, 6 equipped with mechanical stokers, 2 oil-fired and 3 gas-fired.
—	—	44	44	—	—	17	27	do.	Replaced domestic boilers and/or open fires.
3	—	1	5	—	—	5	—	do.	Additional boilers.
23	9	123	185	—	4	87	94		

Installations completed at new and reconstructed Corporation premises included oil-fired boilers at Menzieshill High School, Greenfield Primary School, Linlathen High School (Extension), the Weights and Measures Department and the Public Works Department Headquarters, while gas-fired units were installed at Barnhill Primary School (Phase II), Longtown Nursery School, Kirkton Community Centre, the Social Work Department, Commercial Street, and at a laundrette. Hand-fired solid fuel boilers at Clepington Primary School, Polepark Day Nursery, Fairbairn Street Day Nursery and the Health Department Offices, West Bell Street, were replaced by new boilers equipped with oil-burners.

Details of the Total Numbers of Notable New Boiler/Furnace Installations and Major Alterations carried out within the City since the Clean Air Act 1956, came into operation are as follows :—

Years	Nature of Premises			New Furnace/ Boiler Installations	Adaptations, etc. to Boiler Units	Type of Fuel			Categories of Solid Fuel Burning Units
	Factories	Shops, Offices, etc.	Other Premises			Solid Fuel	Oil	Gas	
1957-1971 inclusive	270	128	642	1,254	—	139	690	425	52 — Handfired (5 coal, 47 coke and anthracite), 52 — Under-feed stokers, 3 — Low-ram coking stokers, 4 — Wide-ram coking stokers, 6 — Chain-grate stokers, 2 — Gravity hopper feed, 2 — P.F. attritor systems, 1 — Pneumatic sprinkler feed, 5 — Incinerators with gas jets, 12 — Incinerators with oil or gas after-burners, 25 — Under-feed stokers, 3 — Low-ram coking stokers, 1 — Wide-ram coking stoker, 16 — Chain-grate stokers, 7 — Sprinkler stokers.

(a) Mechanical stokers fitted.

(b) Oil burners fitted to boiler units formerly burning solid fuel.

Section 6 of the 1968 Act — Chimney Heights. A total of 18 applications were received by the department requesting formal approval of chimney heights in terms of this Section. All the applications related to chimneys to serve boiler units burning liquid (oil) fuel at a rate equivalent to 1.25×10^6 or more British thermal units per hour. Every application was therefore very carefully vetted. Visits to the sites concerned and consultations with the architects, heating consultants, etc. involved resulted in agreement being reached and an acceptable chimney height determined in every case.

The importance of the site condition factor was emphasised in one particular case. This related to twin chimneys designed to serve individual boiler units at factory premises overlooked by nearby tenements built on a higher level. In this case it was necessary to require chimneys to be erected much higher than originally intended in order to obviate risk of nuisance to the occupiers of the dwellings concerned.

The department continues to maintain a close liaison with the Heating Division of the Chief Architect's department relative to chimney heights at Corporation premises, and also co-operates very closely with the Buildings Authority concerning chimney and flue terminals to which Regulation F.31 of the Building Standards (Scotland) (Consolidation) Regulations, 1970, applies.

Sections 11-15 of the 1956 Act — Smoke Control Areas. The City's eleventh Smoke Control Area Order — Downfield East — did not come into effect on 1st October, 1971, as originally planned. Its operation was postponed until 1st January, 1972, to allow time for the making of a Variation Order providing for the exemption of the 234 "War-time Specification Houses" in Magdalene's Kirkton 1st Development until 31st December, 1972, by which time it was envisaged that modernisation of the dwellings should have been completed. This procedure was adopted to obviate the need for expenditure having to be incurred by the householders and payment of grant having to be made by the Local Authority towards the cost of new installations which might subsequently have to be removed and replaced in the course of the work of modernisation. At the time of writing, however, consideration is being given to the desirability of clearing and redeveloping this site.

A number of householders in the Downfield East Area failed to carry out the necessary alterations or replacements to fireplaces, and also failed to comply with the terms of Statutory Notices subsequently served under Section 12 (2) of the 1956 Act requiring them to execute the necessary works or make suitable alternative arrangements for space heating and/or hot water supply within a specified time. The Corporation eventually gave instructions that so far as their own houses were concerned the Public Works Department should implement the terms of the notices and the tenants concerned charged 30 per cent of the cost of the work.

A total of 15,935 visits were made to houses and other premises in established and proposed Smoke Control Areas either in the course of survey or in connection with the checking for approval of alterations and replacements to fireplaces.

Complaints concerning faulty appliances and requests for advice regarding techniques required to kindle solid smokeless fuels numbered 9.

While on this subject of the ignition of solid smokeless fuels, it perhaps ought to be mentioned that the Scottish Development Department has now decreed that where householders are not keen to provide a gas poker or burner or electric firelighter for the kindling of solid smokeless fuel they may, as an alternative, use certain approved-type chemical firelighters, namely "Zip", "Kayford White", "Jet" and "Sunny Jim Chunky". The Department, however, indicate that chemical firelighters are only successful with premium fuels and householders should therefore continue to be offered grant for the installation of gas or electrical means of ignition which, they point out, is the more economical method of kindling solid smokeless fuels.

During the year, 20 contraventions of Section 11 relating to the emission of smoke by the burning of fuels which are not authorised had to be dealt with, eleven of the offending householders being served with Statutory Notices and the others being given a verbal warning. A penalty of £20 can be imposed, however, if offenders are taken before the Sheriff and found guilty.

Phased Programme. The twelfth Order — the Dundee (Fintry) Smoke Control Area Order, 1971 — was confirmed by the Secretary of State on 7th September, 1971, and is due to come into operation on 1st October, 1972. When it does, 6,747 acres (54.9 per cent. of the City's area), 39,614 dwellings (54.3 per cent. of the City's houses) and 2,111 other premises will be covered by Smoke Control Area legislation.

The following table gives details of the twelve Smoke Control Areas in Dundee whose Orders have already been made and confirmed by the Secretary of State; also information concerning the Dundee (Douglas) Smoke Control Area which is scheduled to come into operation on 1st October, 1973 :—

AREAS	Operative date of Order	Acreage of Land	Local Authority	No. of Houses *			No. of Other Premises
				S.S.H.A.	Private	Total	
Menzieshill	1/10/59	525	2,649	—	142	2,791	50
Glamis Road	1/4/61	230	1	—	1,026	1,027	49
Balgay	1/10/61	268	495	—	394	889	124
Camperdown	1/10/61	675	2,577	126	6	2,709	76
Whitfield	1/10/61	560	4,057	—	13	4,070	30
West End	1/10/63	524	710	—	2,168	2,878	396
Downfield West	1/10/65	1,282	5,133	96	925	6,154	237
Lochee	1/10/66	552	2,904	124	629	3,657	450
Coldside	1/10/67	365	2,446	—	1,258	3,704	214
Law	1/10/68	207	396	—	3,063	3,459	245
Downfield East	1/1/72	1,094	3,296	120	1,266	4,682	172
Fintry	1/10/72	465	911	2,680	3	3,594	68
Douglas	1/10/73	622	3,492	6	230	3,728	78

* Does not include houses and other premises which still exist within the Areas but, for various reasons, were exempted from the provisions of Section 11 of the Act by the appropriate Smoke Control Area Orders.

An important development relating to Smoke Control Area progress, or the lack of it, was the receipt of S.D.D. Circular No. 80/1971, dated 7th October, 1971, which, inter alia, indicated that the Secretary of State was anxious to see an energetic resumption and initiation of smoke control programmes and required specified local authorities (including Dundee) to submit such programmes and at the same time indicate a target year for completion.

As a result of this Circular, the Corporation has since approved a further programme covering the remainder of the City which has been carefully prepared and phased to fit in, so far as can be foreseen at present, with development plans and modernisation schemes for Local Authority houses and is based on the making of one Smoke Control Order a year until the last Order comes to be made in 1979. Details of the areas involved are as follows :—

Order to be made 1973 : Operative date 1st October, 1974

The area bounded by Arbroath Road, East Balgillo Road, Balgillo Road, Forthill Road, Fort Street, the foreshore, Broughty Ferry Road (from its junction with Stannergate Road) and Strips of Craigie Road.

Acreage	Estimated Number of Houses		Total	Other Premises
	Private	Local Authority		
727	2,260	530	2,790	60

Order to be made 1974 : Operative date 1st October, 1975

The area bounded by Fountainbleau Drive, Pitkerro Road, Midmill Road, Happyhillock Road, Douglas Road, Kingsway East and Forfar Road.

Acreage	Estimated Number of Houses		Total	Other Premises
	Private	Local Authority		
307	40	2,110	2,150	60

Order to be made 1975 : Operative date 1st October, 1976

The area bounded by the north City boundary, the east City boundary, the foreshore, Fort Street, Forthill Road, Balgillo Road, East Balgillo Road, Arbroath Road, Baldovie Road and Kellas Road.

Acreage	Estimated Number of Houses		Total	Other Premises
	Private	Local Authority		
1,850	2,290	750	3,040	400

Order to be made 1976 : Operative date 1st October, 1977

The area bounded by Kingsway East, Strips of Craigie Road, Broughty Ferry Road (to its junction with Stannergate Road), the foreshore, the Parliamentary Division Boundary via Castle Street and High Street (to its junction with Commercial Street), thence by Commercial Street, Meadowside, Panmure Street, Cowgate, King Street, Princes Street, Albert Street and Forfar Road.

Acreage	Estimated Number of Houses			Total	Other Premises
	Private	S.S.H.A.	Local Authority		
894	2,220	300	820	3,340	900

Order to be made 1977 : Operative date 1st October, 1978

The area bounded by Kingsway, Forfar Road, Dura Street, Dens Road, Mains Road, Strathmartine Road, Clepington Road and Old Glamis Road.

Acreage	Estimated Number of Houses		Total	Other Premises
	Private	Local Authority		
423	1,700	2,740	4,440	350

Order to be made 1978 : Operative date 1st October, 1979

The area bounded by Mains Road, Dens Road, Dura Street, Albert Street, Princes Street, King Street, Cowgate, Panmure Street, Meadowside, Victoria Road and Hilltown.

Acreage	Estimated Number of Houses		Total	Other Premises
	Private	Local Authority		
177	3,260	720	3,980	700

Order to be made 1979 : Operative date 1st October, 1980

The area bounded by Milnbank Road, Polepark Road, Lochee Road, Dudhope Terrace, Somerville Place, Constitution Street, Hilltown, Victoria Road, Meadowside, Commercial Street, and the Parliamentary Division Boundary via High Street and Castle Street to the foreshore, the foreshore, Riverside Approach, Magdalen Yard Road, Shepherd's Loan, Hawkhill, Peddie Street and Rosefield Street.

Acreage	Estimated Number of Houses		Total	Other Premises
	Private	Local Authority		
547	3,900	680	4,580	1,340

Section 9 of the 1968 Act — Acquisition and Sale of Unauthorised Fuel in Smoke Control Areas. In one instance where it was necessary to warn a householder concerning the emission of smoke from a chimney of his dwelling, the supplier of the coal being burned was ascertained. The merchant, a first offender, was subsequently informed in writing that if he committed a further contravention of this nature the facts would be reported to the Procurator Fiscal with a view to action being taken against him in the Sheriff Court.

New Clean Air Legislation

The Clean Air (Measurement of Grit and Dust from Furnaces) (Scotland) Regulations, 1971, which replace the 1968 Regulations, came into force on 1st May, 1971. They lay down the requirements to be observed and the procedure to be followed in recording measurements of grit and dust emitted from certain furnaces where this is being carried out in compliance with a notice under Section 7(1) of the Clean Air Act, 1956, as amended by Section 5 of the 1968 Act, served by the local authority on the owner of the plant or occupier of the building.

The furnaces in respect of which such a notice may be served are those used :—

- (a) to burn pulverised fuel; or
- (b) to burn, at a rate of 100 lbs. or more an hour, any other solid matter; or
- (c) to burn, at a rate equivalent to 1,250,000 or more British thermal units an hour, any liquid or gaseous matter.

The Clean Air (Emission of Grit and Dust from Furnaces) (Scotland) Regulations, 1971 came into operation on 1st November, 1971, although their application to existing furnaces is postponed until 1st January, 1978. The Regulations prescribe specific limits on the quantities of grit and dust which may be emitted from chimneys serving certain furnaces, namely :—

- (a) furnaces of steam boilers and of appliances for the indirect heating of gas or liquid with a Maximum Continuous Rating of between —
 - (i) 825 and 475,000 pounds of steam per hour (from and at 100° C. [212° F.]) or (the alternative being an equivalent).
 - (ii) 825,000 and 475 million British thermal units per hour and
- (b) other furnaces of indirect heating appliances or in which the material being heated does not contribute to the emission, with a designated heat input of between 1.25 million and 575 million British thermal units per hour.

The Regulations do not, however, apply to incinerators.

If the emission of grit or dust is in excess of the limits prescribed the occupier of the building concerned is, in accordance with the terms of Section 2 (2) of the 1968 Act, liable on summary conviction to a fine not exceeding £100.

The Smoke Control Areas (Exempted Fireplaces) (Scotland) Order, 1971, came into operation on 24th August, 1971, and added the "Rayburn CB 34", a room heater with boiler, to the list of appliances exempted from the provisions of Section 11 of the Clean Air Act, 1956, subject to the following conditions :—

- (a) that the appliance is installed, maintained and operated so as to minimise the emission of smoke and in accordance with the manufacturer's instructions, and
- (b) no fuel is used other than selected washed coal singles.

S.D.D. Circular No. 42/1971 — Grant Arrangements and Appliance Cost Limits. This Circular, dated 25th May, 1971, set out revised and increased cost limits for various types of appliances which can now be accepted as eligible for grant and qualify for the Exchequer contribution relative to expenditure necessarily incurred in connection with the replacement of fireplaces in Smoke Control Areas. On this matter, the Corporation decided that the new limits should be applied to the Fintry and subsequent Smoke Control Areas.

Alkali, etc. Works Regulation (Scotland) Acts, 1906 and 1951

A development of note which in some degree contributed towards cleaner air was the termination of oxidised bitumen processing at Fish Dock Road in premises registered under this legislation — where the manufacture of oxidised bitumen was carried out by heating the bitumen in oil-fired stills, the fumes produced during the process being passed through condensers and scrubbers before being discharged to the atmosphere. This manufacturing process is now carried out in a new plant at the firm's main works in East Camperdown Street. No fired heaters are required and the fumes from the process, after passing through a condenser and scrubber, go directly into a furnace where the incondensibles are burned.

The solidification of the oxidised bitumen so produced is carried out by pouring it into open beds and this part of the process still produces fumes. However, by the end of the year arrangements were in hand to discontinue the use of this method and replace it by a new process where the bitumen is solidified under water with little or no fume emission.

Factories Act, 1961

The following table details the numbers and types of factories on the register at the end of 1971 :—

TRADE or BUSINESS	Mechanical Factories	Non-Mechanical Factories
Blacksmiths, Carriage Builders, etc.	10	—
Boot Repairers, Saddlers, etc.	18	—
Building and Associated Trades	71	2
Coal, Firewood and Timber Merchants	8	—
Dental Mechanics, etc.	20	—
Dress and Mantle Makers, Furriers, Milliners, etc.	12	1
Engineering (Light and Heavy)	62	—
Engineers (Electrical, Radio and T.V., etc.)	36	—
Engineers (Motor Vehicle Repairs, etc.)	131	—
Food Manufacturers, Packers and Canners, Bottlers, etc.	84	—
Launderers, Dyers and Dry Cleaners	22	—
Musical Instrument and Sports Equipment Repairs	4	1
Photographers and Picture Framers	6	1
Printers, Ticket Writers, etc.	25	—
Tailors	9	—
Textile Spinners, Weavers and Calendriers	65	—
Upholsterers, Cabinetmakers, etc.	20	—
Waste, Rag and Metal Merchants	8	—
Watch and Jewellery Repairers, Opticians, etc.	3	—
Miscellaneous, including Outworkers, Sites of Building Operations, etc.	62	4
	676	9

In discharging the Local Authority's duties under this Act the inspectorate paid 717 visits to factories, including food manufacturing, etc. and bakehouse premises which, although also factories within the meaning of the Act, are dealt with and reported upon separately in the Food Section of the report.

Some 54 visits were also paid to other premises to which Section 7 of the Act applies, such as the sites of building operations, etc.

Details of the inspections carried out and the contraventions discovered and remedied have to be given each year to the Secretary of State as prescribed information by virtue of the provisions of Section 153 (1) of the Act and the following is a copy of the particulars so supplied to the Central Authority for the year under review :—

**Prescribed Particulars on the Administration of the
Factories Act, 1961
Part I of the Act**

1. 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 Authorities ...	9	7	—	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority ...	648	710	13	—
(iii) Other Premises in which Section 7 is enforced by the Local Authority (including out-workers' premises) ...	28	54	—	—
TOTAL	685	771	13	—

2. DEFECTS Found and Remedied

Particulars	Number of defects				Number of cases in which prosecutions were instituted
	Found	Remedied	Referred to H.M. Inspector	Referred by H.M. Inspector	
Want of cleanliness (S.1) ...	—	—	—	—	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3)	—	—	—	—	—
Inadequate ventilation (S.4) ...	—	—	—	—	—
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary conveniences (S.7)					
(a) Insufficient	—	—	—	—	—
(b) Unsuitable or defective ...	39	37	—	13	—
(c) Not separate for sexes ...	1	1	—	1	—
Other offences against the Act (not including offences relating to out-work)	—	—	—	—	—
TOTAL	40	38	—	14	—

Part VIII of the Act

Outworkers (Sections 133 and 134)

Number of out-workers in August Lists (i.e. those residing in Dundee)	7
Nature of work —	
(i) Making, etc. of wearing apparel	6
(ii) Making of curtains and furniture hangings	1

Noise Abatement Act, 1960

A total of 39 complaints under this heading were received and dealt with during the year, 246 visits of investigation having to be made by the inspectorate in connection therewith. The year was no exception to others in the past in that many of those visits had to be arranged outwith normal working hours — not infrequently in the early hours of the morning — when the noise complained of existed or was more evident due to the lowered ambient noise level.

An indication of the sources of the complaints and matters dealt with can be seen from the following :—

				ORIGIN OF NOISE		
				Industrial/Commercial	Domestic	Pneumatic Drills
Dealt with	...	...	...	28	7	4
Abated	...	...	...	30*	7	4

* Includes matters under investigation towards the end of 1970 and remedied during 1971

One complaint concerned the noise from a pump unit which was being operated to cope with underground water at a building site in the central area of the City. During the night hours the noise produced was a source of disturbance to the occupiers of a flatted dwelling in the immediate vicinity. The problem, however, was solved quite simply by enclosing the pump unit within an improvised structure which reduced the noise to an acceptable level. Fortunately, too, the pumping operations were necessary only for a comparatively short period until permanent arrangements were completed to prevent the water from flooding the site.

The sounds of musical entertainment from a public house lounge in a residential part of the City was the subject of complaints from a number of nearby residents. The matter was immediately brought to the notice of the proprietors as a result of which the manager was instructed to ensure that the volume control of any amplification equipment used by vocal groups and other performers was kept turned down to a reasonable level. Complaints of this nature are far too common nowadays, and licencees must appreciate that even in this age of "pop music" and public house entertainment the comfort and well-being of people residing in the vicinity must be safe-guarded and strict control of amplifiers, juke boxes, etc. exercised, particularly where the premises form part of a tenemental building.

The noise produced by a fibre transportation system at factory premises was the subject of complaints from the occupiers of a dwelling immediately adjacent. The conveyor passages consisted of light metal

trunking or ducts fixed to the external wall of the factory along which quantities of synthetic fibre are transported from the reception section to various storage rooms by a propulsion force generated by powerful fan units. Unfortunately, although the equipment only operated intermittently it was liable to do so at any time of the day or night and the noise during the night hours when the background level was at its lowest was alleged to be particularly disturbing. After sound level readings taken in accordance with B.S. 4142 : 1967 had revealed that the complaints were well justified, appropriate representations resulted in the fan unit being enclosed within a sound proofing structure and isolated from the trunking by the introduction of rubber sleeve-inserts to reduce transmission. The sections of the trunking nearest the complainers' dwelling were also covered with insulating material, and sound level readings taken afterwards showed a noise reduction of 12 decibels.

Other matters dealt with included the problems of noise nuisance from refrigerators and extractor fans at commercial premises, pneumatic drills and compressor units.

Applications for planning permission in terms of Town and Country Planning (Scotland) legislation continue to be vetted by this department, and cases considered to involve a noise nuisance potential are brought to the notice of the Chief Planning Officer. As a result, restricting conditions are generally laid down if the application is approved such as the prohibition of noisy operations or the use of machinery during the night hours. In this way the interests of residents in the vicinity are safeguarded, prevention being better than cure.

The Food and Drugs (Scotland) Act, 1956, and Statutory Instruments having effect under that Act

Food Inspection

The scheme which has existed in the City for so long whereby food traders can request the department to examine foodstuffs suspected of being unsound continued during 1971 without diminution, resulting in the examination by the inspectorate of very substantial quantities of food and the voluntary surrender for supervised destruction of that found to be unfit.

In this way, and generally without financial loss to themselves, wholesalers, retailers, caterers, etc. are able, very largely, to avoid the hazard of passing on to consumers foodstuffs which might cause illness or give rise to complaint. Primarily, the scheme is operated in the interests of health and it is gratifying to know that it is used to such a large extent by the traders.

Some 247 requests for examinations under this heading were received by the department during the year and, arising therefrom, 1,818 certificates of unfitness were issued. Details of the articles so certified and the quantities disposed of under the supervision of the inspectorate are given in the following table :—

ARTICLES OF FOOD SURRENDERED

ARTICLES	Where Sur- rendered	Tons	Cwts.	Qrs.	Lbs.	Reasons for Sur- render
Bacon	Shops, Wholesale Stores, Caterers, etc.	—	1	3	13	Decomposition, Contamination, Damage to Containers, etc.
Beef		—	15	—	18	
Beef (Tinned)		2	8	—	21	
Butter		—	1	1	4	
Cheese		—	13	3	8	
Chicken		2	1	1	27	
Confectionery		—	1	—	2	
Fish		1	4	—	8	
Fruit		—	3	1	1	
Fruit (Tinned)		2	16	—	13	
Fruit, etc. Juices		3	—	3	1	
Ham (Tinned)		3	3	2	7	
Ice Cream		—	1	3	18	
Jam, Syrup, etc.		—	2	—	6	
Milk (Tinned)		—	3	1	8	
Pork (Tinned)		3	—	2	27	
Rice (Tinned)		—	19	1	8	
Soup (Tinned)		2	15	3	12	
Tongue (Tinned)		1	7	3	20	
Vegetables		—	6	1	4	
Vegetables (Tinned or Prepacked)		3	6	1	21	
Miscellaneous		—	—	3	13	
TOTAL		28	15	1	8	

As one would naturally expect, of course, much of the food surrendered and destroyed is canned produce, which is only to be anticipated when one considers the enormous amounts of canned foodstuffs sold nowadays in relation to other food products.

Apart from food which was found unfit, and which might be described as predictable spoilage, the following cases encountered might be considered of interest and deserving of special remark :—

A woman customer dropped and broke a bottle of weedkiller at a meat counter in a department store and this resulted in the contamination of 818 lbs. of meat which had to be destroyed.

Forty-nine dozen plastic bottles of orange squash, some of which were badly blown, were surrendered for destruction because of over-fermentation.

One hundred and twenty-four cartons of milk chocolate were surrendered and destroyed following damage and contamination by rodents which had infested the storage premises.

There was a substantial increase in the number of breakdowns of deep freeze cabinets and refrigerators in food premises due to mechanical failures, resulting from such things as compressor breakdowns, burned out motors, broken belts, excessive vibration, power cuts, etc., and this resulted in the loss of 2,314 lbs. of food. Thirty such breakdowns were reported during the year compared with twenty for 1970, and although this is not an alarming increase when one considers the enormous amounts of food which are nowadays stored and kept fresh under refrigeration, a close watch is nevertheless being kept on the situation in order to ensure that so far as is reasonably practicable losses are not the result of gross inefficiency.

Despite every endeavour to prevent unsound or adversely affected food from reaching the consumer, however, an increased number of complaints from members of the public were received relating to articles sold to them which were alleged to be unsound or were in some other way unfit for human consumption.

All complaints were, of course, routinely investigated, and the amount of the inspectors' time which is taken up in this type of work cannot be over-emphasised, particularly when it involves the interviewing of witnesses, the submission of samples for examination or analysis to the bacteriological laboratory and/or the laboratory of the Public Analyst, the inspection of food stocks, premises and equipment, the checking of invoices, etc., correspondence and interviews with manufacturers, wholesalers, importers, carriers, and so on. It is important to note that the services of two inspectors are required for nearly every such investigation for corroboration purposes should the case eventually reach the Courts.

During the year, 142 such complaints (representing an increase of 30% on last year's figure) were investigated, resulting in some 357 visits having to be paid by the inspectorate in the subsequent investigative procedures.

While it is well recognised that the sale of food which is unfit for human consumption is an extremely serious legal offence, 126 of these cases, it was found, could not be reported to the Procurator Fiscal for

various reasons. These included cases where the Public Analyst's report did not corroborate the complaint, where for certain reasons there was insufficient evidence for prosecution, where there was delay in bringing the complaint to the notice of the department, and so on.

The remaining 16 complaints, however, were all reported to the Procurator Fiscal with the following results :—

13 Offenders were brought to the Court and fined

3 Cases were not proceeded with for various reasons.

Details concerning all of these can be found under the heading "Other Sampling" which appears later in the report.

The following table gives an indication of the foodstuffs involved and the number of complaints associated with each type of food.

Food	Number of Complaints	Food	Number of Complaints
Bread	13	Brought forward	116
Milk	11	Mince	3
Cakes, etc.	10	Liver	3
Loose Meat, etc.	9	Meat Spread/Paste	2
Soft Drinks, etc.	8	Margarine	2
Sweets, etc.	8	Jam/Rhubarb	2
Foods (as part of meal)	8	Cream	2
Tinned Fruit	7	Trifle	2
Sausages, etc.	7	Raw Fruit (Chestnuts)	2
Meat Pies	7	Cereal	1
Sausage Rolls	5	Continental Sausage	1
Rolls	4	Jelly	1
Tinned Meals	4	Macaroni with Cheese	1
Spirits	3	Scotch Egg	1
Soups	3	Eggs	1
Tinned Meat/Ham, etc.	3	Tinned Vegetables	1
Cheese	3	Miscellaneous	1
Butter	3		
		Total	142

An indication of the nature of the complaints may be of interest as well as the numbers relative to each, and this can be seen from the following :—

Nature of Complaint	Number dealt with
Mould/Fungal/Yeast Growths	36
Decomposition/Rancidity/Sourness, etc.	28
Foreign Material or Extraneous Substances	24
Insects in or on Food	21
Peculiar Smell/Taste/Appearance	17
Matter Associated with Food (Blood, Bovine Tissue, etc.)	4
Misdescription (Pig Liver for Lamb Liver, etc.)	3
Adulteration, etc. of Spirits	3
Metallic Contamination/Corrosion of Can	3
Dirty Bottle	1
Food Causing Sickness	1
Miscellaneous	1
TOTAL	142

The Imported Food (Scotland) Regulations, 1968

These Regulations lay down, inter alia, procedures to be adopted in the examination of imported food by enforcing authorities, and for the submission of samples to Public Analysts. Needless to say, it is an offence to import food into this country which is unfit for human consumption. The Regulations are designed to contain sufficient measures for the protection of the public health from this source, and also to facilitate the present well-known containerisation methods of transportation whereby the containers need not be opened and the food examined until the final destination is reached. This necessitates, of course, immediate inspection when the containers finally reach the inland food premises, both in the interests of food quality and to ensure a quick turnover of the container traffic.

A small but ever-increasing volume of imported food is now being brought to Dundee by vehicles carrying containers which have been landed at other ports and since these containers must remain sealed until inspectors from this department can witness the unsealing and then carry out a thorough examination of the contents, increasingly great demands are being placed upon the resources of the department in ensuring the timeous carrying out of this work. If the container is found to have been opened, of course, this will mean that examination has been carried out and clearance given at the port of arrival.

During the year, 43 visits were made in connection with this legislation and as a result of prior notifications and advice notes from seven different authorities that unopened containers would be reaching this area, quite a variety of foods including fresh frozen shrimps, flour, redcurrant juice, orange pulp, ginger in syrup and tinned chopped ham and pork, had to be examined at the premises of carriers, manufacturers and wholesale food merchants in the City.

Two samples of Indian tea, one of ginger in syrup from Australia and two of Spanish orange pulp were submitted to the Public Analyst for examination and were reported to be genuine. A sample of Canadian flour damaged in transit by sea water, however, was found to be affected by mould growth, and this resulted in 91 x 140 lb. bags (part of a consignment of 287 bags) being initially detained but eventually released for industrial use.

Slaughterhouses, Meat and Cattle Markets

There are no private slaughterhouses in the City, but the Public Slaughterhouses, etc., come under the jurisdiction of Mr Andrew Spreull, M.R.C.V.S., the Superintendent of Markets and Slaughterhouses, who has kindly supplied the following information relative thereto :—

Class of Animal	Slaughtered	No. of Animals		Weight (in lbs.) of Meat Condemned
		Wholly Condemned	Partially Condemned	
Cattle	16,618	23	2,687	22,294
Calves	175	5	9	309
Totals	16,793	28	2,696	22,603
Sheep	33,862	90	3,189	4,722
Pigs	11,689	75	1,630	14,059 "

Food Sampling

Comparative information relating to the department's sampling activities under the Food and Drugs (Scotland) Act, 1956, over the last five years is as follows :—

Year	Number Purchased or Taken		Genuine	Adulterated	Percentage Adulterated
1967	577	507	70	12.13
1968	372	341	31	8.63
1969	380	332	48	12.63
1970	626	580	46	7.35
1971	691	603	88	12.74

The total of 691 for 1971 consisted of 190 formal samples — that is to say, taken in accordance with the procedure laid down in the Act — and 501 informal (or test) samples, which, when found to be not genuine in any way, are invariably followed up by the use of formal sampling procedure.

The respective details are as follows :—

I. Formal samples procured with the possibility of legal proceedings in the event of adulteration or irregularity being found :—

	Number Purchased or Taken		Certified to be	
			Genuine	Adulterated or Irregular
Gin	...	1	1	—
Groceries	...	36	36	—
Ice Cream	...	23	21	2
Meat Pies	...	9	8	1
Milk Ice	...	1	1	—
Milk	...	5	5	—
Mince	...	36	28	8
Rum	...	13	12	1
Sausages	...	36	28	8
Vodka	...	2	2	—
Whisky	...	28	27	1
	190		169	21

II. Informal Samples :—

	Number Purchased or Taken		Certified to be	
			Genuine	Adulterated or Irregular
Baby Food	...	4	4	—
Beer	...	5	5	—
Butter	...	2	2	—
Butter Milk and Yoghurt	...	3	3	—
Cake Mix	...	3	3	—
Cheese and Cheese Spread	...	8	8	—
Coconut	...	2	2	—
Coffee and Cocoa	...	2	2	—
Confectionery	...	15	15	—
Condiments and Seasonings	...	7	6	1
Cream	...	2	2	—
Dried Fruit	...	7	7	—

	Number Purchased or Taken	Certified to be	
		Genuine	Adulterated or Irregular
Brought forward ...	60	59	1
Dried Vegetables ...	3	2	1
Evaporated and Condensed Milk ...	2	2	—
Fish and Fish Products ...	14	11	3
Fruit ...	24	23	1
Fruit Drinks ...	19	19	—
Jams and Fruit Spreads ...	4	4	—
Jellies ...	3	3	—
Margarine ...	4	4	—
Meat and Meat Products ...	20	19	1
Meat Pies ...	36	23	13
Medicinals ...	60	60	—
Milk ...	123	114	9
Milk Puddings and Cereals ...	7	7	—
Mince ...	36	24	12
Pasteurised Eggs ...	6	6	—
Pickles and Pickled Vegetables ...	20	16	4
Pie Filling and Flavourings ...	3	2	1
Sauces and Salad Creams ...	9	7	2
Sausages ...	36	17	19
Tea ...	2	2	—
Tinned Fruits ...	4	4	—
Tinned and Powdered Soups ...	2	2	—
1 Sample each of the following:—			
Flour, Cooking Fat, Fresh Vegetables, Honey ...	4	4	—
	<u>501</u>	<u>434</u>	<u>67</u>

With a population of 182,930 this works out at 3.78 samples for every 1,000 persons, compared with 3.45 for 1970, 2.09 for 1969, 2.04 for 1968 and 3.16 for 1967.

In addition to the above, however, a further 554 food samples (detailed later in the report) were obtained for other purposes, namely 264 for chemical analyses and 290 for bacteriological examination.

The total figure for 1971 is therefore 1,245, which works out at 6.81 per 1,000 of the population.

Formal Samples found to be Adulterated or Irregular

Ice Cream. Detailed information concerning samples of these found to be adulterated or irregular is given under the heading "The Ice Cream (Scotland) Regulations, 1948/1970".

Meat Pies. The analysed part of a sample of nine Scottish Pies revealed that the three pies comprising the portion submitted to the Public Analyst were deficient in meat content to the extent of 15%, 12.5% and 14% respectively, and therefore did not conform to the Meat Pie and Sausage Roll (Scotland) Regulations, 1967, which lay down a minimum meat content requirement of 20%. The manufacturer was severely warned and proof that this was heeded was forthcoming when samples taken later were found to be in compliance.

Mince and Sausages. Detailed information concerning samples of these found to be adulterated or irregular is given under the headings "The Preservatives in Food (Scotland) Regulations, 1962" and "The Sausage and Other Meat Product (Scotland) Regulations, 1967".

Rum. A sample of rum was found to be below the strength stated on the label attached to the bottle from which the sample was supplied. The circumstances were reported to the Procurator Fiscal but when the case was raised in the Sheriff Court the licence-holder was found "Not Guilty", the case apparently being lost because of a technicality.

Whisky. A sample of whisky taken from a Welfare Club was also found to be below the strength stated on the label attached to the bottle, and here again the circumstances were reported to the Procurator Fiscal. The Club was eventually fined £15 in the Sheriff Court after pleading guilty to the offence.

Informal Samples Found to be Adulterated or Irregular

Curry Powder. The Public Analyst reported that a sample of curry powder had a zinc content equal to 55 parts per million parts sample. This, he considered, was unusually high since the recommended maximum for zinc in such a product is 50 parts per million. Although it was felt that this would be unlikely to cause harm to a consumer, the firm's attention was nevertheless directed to the matter. In reply they stated that in the past they had examined their product for traces of copper, lead and arsenic (which have mandatory standards laid down for their levels in curry) but in view of the Analyst's findings they would also introduce a monitoring programme for zinc determination to try to establish a trend of results and see if an approximate 50 parts per million level of zinc is typical or unusually high. Further information is awaited and sampling of this product will continue.

Dried Vegetables. The offence in this case was really a contravention of the Labelling of Food Order, 1953, and details relative thereto are available later in the report under the appropriate heading.

Fish Cakes. These, by virtue of the Food Standards (Fish Cakes) Order, 1950, are required to contain 35% by weight of fish, but three samples were found to be deficient in fish content to the extent of 20%, 32.9% and 51% respectively. The first two deficiencies mentioned concerned a small manufacturer who was new to the business and he was given advice on the standards laid down and how to achieve these. Formal follow-on samples were found to be genuine. The highest deficiency involved a trader who, before a formal follow-on sample could be taken, had started labelling his product "Potato Cakes".

Fruit. A sample of oranges revealed on analysis the presence of traces of an organophosphorus pesticide. It was not possible, however, to make a specific identification but further samples taken from the source were found to be free from pesticide residues.

Liver Paté. The Public Analyst reported that the description under which a sample of "Liver Paté" was sold was misleading because the major ingredient should have been liver and not pork as stated on the labelled list of ingredients. As from 15th March, 1971, when the Fish and Meat Spreadable Products (Scotland) Regulations, 1970, come into

operation this will constitute a definite offence against Part 2, Section 4(1) (b), which states that the named meat, i.e. liver, must constitute 70% of the paté. It was recommended that the name of the product should be changed to "Pork and Liver Paté", or that the liver content be increased to 70%, but it was discovered that the firm concerned had already been approached by another local authority regarding this matter and had stated that the meat was packed for them by a Norwegian company who had indicated that if the product was made with 70% liver it would not be palatable. They admitted that the main ingredient was in fact pork and decided that in future the product would be labelled as already recommended, namely "Pork and Liver Paté".

Meat Pies. Thirteen samples of meat pies did not conform to the Meat Pie and Sausage Roll (Scotland) Regulations, 1967, in that they showed on analysis to have meat content deficiencies varying from 8% to 60%. In two cases formal follow-on samples could not be obtained because the owners of the businesses had ceased trading. The result of a follow-on formal sample found to be deficient has already been reported on under the heading "Formal Samples found to be Adulterated or Irregular", but all other such follow-on samples were found to conform. It is perhaps pertinent to mention, however, that in at least four instances the irregularity was really a labelling offence because had the pies been labelled "Scotch Pies" they would have been classed as genuine.

Milk. Nine samples of milk failed to comply with the quality standards laid down, eight being samples of Pasteurised Milk (four from coin-in-the-slot vending machines) which were deficient in solids-not-fat with five also showing the presence of added water. A sample of Standard Milk was also deficient in non-fatty solids content with an indication of the presence of added water. In all nine cases, however, formal samples taken immediately after the results were known proved to be genuine.

Mince and Sausages. Detailed information concerning these sample failures is contained in the section of the report headed "The Preservatives in Food (Scotland) Regulations, 1962", and "The Sausage and Other Meat Product (Scotland) Regulations, 1967".

Pickles and Pickled Vegetables. Samples of Sliced Beetroot, Mixed Pickles, Onions and Cauliflower which were reported by the Public Analyst as being irregular were really contraventions of the Labelling of Food Order, 1953, and details relative thereto have therefore been included in the section of the report which bears this heading.

Flavouring. This concerned a sample labelled "Lemon Flavouring" which was reported by the Public Analyst to be in contravention of the Labelling of Food Order, 1953, and here again the necessary details have been included in that section of the report.

Sauces and Salad Creams. A sample of tomato ketchup did not conform to the Food Standards (Tomato Ketchup) Order, 1949, in that the tomato solids content was only 5.5%. This is a deficiency of 8.3%, the prescribed minimum being 6%. A follow-on formal sample was subsequently obtained but this was found to be up to standard.

A sample of salad cream was reported by the Public Analyst to be deficient in egg yolk solids to the extent of 18.5%, the minimum percentage laid down by the Salad Cream Regulations, 1966, being 1.35 whereas the sample contained only 1.1%. Here again, however, a follow-on formal sample was found to be in compliance.

Other Sampling

In addition to the foregoing, of course, many other samples were submitted to the Public Analyst for examination for purposes other than that of checking compliance with statutory compositional standards. Included within this category were foods submitted to establish fitness or otherwise for human consumption, samples seeking opinion on foodstuffs which were the subject of complaint from members of the public, samples for determining the character of mains water from domestic taps as well as water from private sources, samples to check on the purity of water in swimming baths (both schools and public), and so on.

The number of samples so submitted totalled 264, and details concerning these are as follows :—

					Satisfactory	Unsatisfactory
121	Fitness, etc. of Food and Drink	...	...		42	79
69	Mains Water	...	...	...	50	19
14	Springs and Wells Water	...	...	...	7	7
60	Swimming Baths Water	...	...	...	57	3
<hr/>					<hr/>	<hr/>
264					156	108
<hr/>					<hr/>	<hr/>

Of the complaints made by members of the public regarding unsatisfactory food and drink it was found possible and justifiable to report the following cases to the Procurator Fiscal :—

A frozen food pack of "Roast Chicken Dinner" purchased from a shop was found to contain an adhesive dressing. The Public Analyst reported that microscopic examination of the lint material forming part of the dressing was stained in part a deeper colour than the rest of the material, indicating that it had probably been in contact with a wound. The Sheriff imposed a fine of £5 after the manufacturing firm pled "Guilty".

A box of chocolate peanuts and raisins purchased from a fish restaurant was found to contain a maggot, later identified as the larva of *Ephestia elutella* — a moth frequently found in chocolate products. The manufacturers were brought to Court and fined £15 after a "Guilty" plea.

Fragments of soda glass were discovered in a morning roll sold by a general grocer. Subsequent investigation at the bakery premises concerned suggested that the glass had gained access as a result of a fluorescent light tube being broken by a person affected by alcohol who had entered the bakehouse and in an argument with one of the employees had thrown a piece of wood against the light fitting. The case was reported because there had obviously been gross carelessness

in failing to ensure that the products in the bakehouse had not been contaminated as a result of the incident. In the Sheriff Court the baker pled "Guilty" and a fine of £10 was imposed.

A bottle of pasteurised milk delivered by a dairyman to a customer was the subject of a complaint in that it contained "dirt". This foreign material, however, was discovered to be puparia of the *Drosophila* fly, most probably of the species *Drosophila funebris*. The bottle was also found to have milk stone deposits on its interior surface. A fine of £10 was imposed by the Sheriff in this case.

A complaint concerning the sale of a Scotch Pie contaminated with mould led, on investigation, to one other pie in a similar condition being found exposed for sale in the shop. With regard to the purchaser's complaint, the Procurator Fiscal decided not to proceed as he was not satisfied that the evidence clearly proved sale of the article; but the direct contravention of Section 8(1) of the Food and Drugs (Scotland) Act, 1956, (Exposure for Sale), disclosed by the investigating inspector and his witness, led to a case being called in the Sheriff Court and a fine of £10 being imposed after the shopkeeper had pled "Guilty".

When a member of the staff of a local hospital opened a wrapped loaf of bread which was part of the delivery from a large bakery, she discovered a metal object embedded in the end slice. This was subsequently identified as being part of a blade from a bread cutting machine. The report from the Public Analyst stated that the appearance of the end slice would seem to indicate that the cutting blade had broken during the slicing process, partially cutting the slice and leaving the end of the broken blade embedded in the partly cut surface. Although the bakery management admitted the correctness of the Public Analyst's report they could find no reason why this should have happened since all the slicing machines on the premises were found to be in good working order and no reports had been received of broken slicing blades. No further information was forthcoming and a fine of £15 was imposed by the Sheriff after the firm pled "Guilty" to the offence.

A morning roll purchased from a shop was found to contain an insect thought to be a house fly. Although the Public Analyst reported that positive identification could not be made due to damage, the appearance and situation of the insect in the roll indicated that it had probably been present during the baking process. The proprietor of the bakehouse supplying the shop was brought to Court where he pled "Guilty" and was fined £15.

A plain, unlabelled, transparent plastic carton of meat paste was sold from a market stall and on the same day the purchaser noticed that on spreading some of the contents on to a sandwich there was an offensive odour. What remained of the contents of the carton was submitted to the Public Analyst and he reported the product to be in a condition unfit for human consumption. Investigation at the place of sale disclosed that the meat paste had been supplied to the trader three days before, and although he stated that it had been kept in a refrigerated

display cabinet it was noted that the glass plate at one side of the cabinet was missing, and had been for some time on the stallholder's own admission. A fine of £5 was imposed by the Sheriff in this case, the plea being one of "Guilty".

The condition of some sliced bacon purchased from a grocer was a cause for concern. When the complainer started to prepare a meal with it she noticed small white particles on the surface of the bacon. She also thought it had a peculiar smell. On investigation next day, the proprietor of the shop admitted that he had returned the remainder of the supply of the same bacon to the manufacturer because of a strong smell, but not because of the presence of fly eggs. The Public Analyst in a report received later stated that the small cream coloured pieces of foreign matter on the bacon were, in fact, the eggs of blow-flies. The proprietor admitted the sale to the complainer and on pleading "Guilty" was fined £10 in the Sheriff Court.

Several pieces of glass were found in a bottle of lemonade purchased from a travelling shop. This was discovered when the husband of the purchaser began to drink from the bottle. When investigation was made at the premises where the lemonade was manufactured a director of the firm immediately suspected sabotage. His reason for this, as he explained, was that pieces of glass inside a bottle would not stand up to the pressure of the jets in the bottle-washing machine used on the premises and any glass found inside a full bottle would most likely arise as a result of the capping machine damaging the rim of the bottle. There was no such damage so far as this particular bottle was concerned, however. The Public Analyst stated in his report that an examination of the bottle revealed the presence of pieces of glass, varying in size from almost a powder up to a piece approximately 10 mm. by 11 mm. in area and 3 mm. thick. This large piece of glass had a pattern embossed on it and was slightly bevelled in shape, the pattern and shape being identical to the pattern-effect at the area of the bottle where the diameter begins to reduce towards the neck. The Analyst was therefore of the opinion that the glass found in the drink had come from a similar type of bottle and its presence rendered the drink unfit for human consumption. On this evidence the firm pleaded "Guilty" in Court and was fined £20.

Mouldy sausage rolls sold by a grocer's assistant resulted in the proprietor of the business being brought to Court and fined £15. The sausage rolls had been delivered to his shop almost a week before they were sold.

The mouldy condition of a sausage roll purchased two days before the complaint was received by the department resulted in the seller being fined £10 in the Sheriff Court after pleading "Guilty". In this case the shopkeeper who sold the article admitted that it was mouldy when the complainer drew her attention to it on the day of the sale. The accused was originally fined £5 for failing to appear in Court and trial was fixed for one month later. On this date, however, the plea of "Guilty" was accepted and the fine imposed.

A bottle of lemonade purchased from a branch grocery shop was found to have a peculiar taste and odour. The Public Analyst reported that he suspected the odour to be due to a phenolic or paraffin substance

and that Gas Chromatographic examination of extracts prepared from the cap and the lemonade did in fact indicate the presence of a number of phenolic substances, showing that the contaminant had most probably been creosote. Spillage of creosote on to the cap was suggested and a sample piece of cardboard taken from a box used to contain the caps, when tested, indicated the presence of a number of similar phenolic substances. As a result of a further complaint, some ten bottles of the same lemonade were also submitted to the Public Analyst, who reported that although four were satisfactory the others contained varying amounts of creosote. One of the plant workmen revealed that he had been aware of a strong smell coming from the bottle tops and that he had noticed a dark stain on the side of a carton which held approximately 3,400 plastic tops contained in a polythene bag. It was discovered that although most of these tops had been discarded some had apparently been used and that not all of the original stock of lemonade had been recalled by the firm after the first complaint was investigated, thus resulting in the second complaint. When the case was called in the Sheriff's Court the manufacturers pled "Guilty" and were fined £10, but only the offence relating to the first complaint was taken into consideration.

A schoolboy purchased some wine gums and noticed that one of them was discoloured. The Public Analyst reported that microscopical examination revealed the presence in the confection of part of a wasp, and he was of the opinion that it had been present in the sweet before the gelatine material, of which the product was composed, had set, because an impression was left behind when the insect was removed. The matter was reported to the Procurator Fiscal, naming the manufacturer as being at fault. The Fiscal, however, decided that in this instance a warning would be sufficient. He notified the firm accordingly.

A woman bought a packet of six sausage rolls in a large multiple store on Monday, 23rd August, took them home and stored them in her refrigerator overnight. After being heated up next day her husband thought, on eating a second one, that it tasted unusual and was immediately sick. He thereupon noticed that the sausage rolls were mouldy. The matter was reported to this department on the same day, Tuesday the 24th, and investigations were carried out at the store. The manager indicated that he did not know the significance of the code marked on the wrapper but stated that all such articles of food are given a 36 hour shelf life by his firm and coded by his staff accordingly, that is to say, any sausage rolls delivered to the store on the morning of any day which remain unsold at 5.30 p.m. on that day are marked by his staff and if unsold at 2 p.m. the next day are taken off and returned to the supplier. A shop supervisor admitted that a similar packet had been taken off at 2 p.m. on the day in question and this was discovered to be affected with mould growth. The manufacturing firm contacted this department stating that the code on the wrapper indicated that the sausage rolls were manufactured on Thursday, 19th August, and delivered to the store not later than Saturday the 21st. The store manager stated that sales records showed that all the sausage rolls delivered on this date had been sold by Monday the 23rd. He went on to confirm, however, what was stated earlier, namely, that

on that Monday he took delivery of six packets of sausage rolls, one of which remained unsold that day and was taken off the next day, Tuesday, at 2 p.m. He also quoted that a delivery invoice contained a warranty that all foodstuffs delivered by the manufacturer complied with the requirements of the Food and Drugs Act, etc. The final outcome was a decision by the Procurator Fiscal that he could not take action since the date of sale was of crucial importance and in this case the only witness speaking to that was the complainer. In the absence of corroboration of sale he marked the case "No proceedings".

The problem of the hazard of lead poisoning in relation to water supplies was the subject of discussion between Medical Officers of Health at a Consultative Committee meeting and it transpired that in quite a number of areas there is a requirement that when housing improvements are undertaken it is one of the conditions of giving a Grant that the piping in the houses should be replaced. With a view to possibly extending this to cover the Dundee area a survey of water supplies in old buildings with lead service piping was undertaken. Samples of the first water to be drawn in the morning from the domestic taps in nine different properties were taken on two occasions, resulting in eighteen samples being checked and analysed. The lead content varied between 0.06 and 0.36 parts per million. Since these were in excess of the recommended level of 0.05 it was felt that every opportunity should be taken to replace when possible lead piping with copper piping in all section of systems servicing houses, and this was put forward as a recommendation to the East of Scotland Water Board.

Another sample of water reported as being unsatisfactory, also taken from a domestic tap, was stated by the Public Analyst to have a high iron content which, in his opinion, would render it unsuitable for domestic purposes. The East of Scotland Water Board was notified accordingly.

The seven "springs and wells" waters referred to in the table as being unsatisfactory all related to samples taken from domestic taps in apartments of a converted mansion house on the City outskirts which is supplied with spring water. Six samples showed nitrate contents in excess of the recommended maximum of 10 parts per million, namely from 10.35 to 12.5 p.p.m. The other sample showed a lead content of 0.06 p.p.m. which is slightly in excess of the figure quoted earlier of 0.05 parts per million. This private source of supply, it is hoped, will soon be converted to a supply from the East of Scotland Water Board's mains.

The three unsatisfactory swimming baths waters were all so reported because they gave respective readings of 2.5, 2.5 and 3.0 parts per million of free chlorine when the recommended maximum is 2 parts per million. Anything above this recommended figure tends to irritate the swimmers' eyes. Subsequent samples, however, were recorded as satisfactory after appropriate adjustments had been made to the plants.

The usual bacteriological examinations were also necessary under the heading of "Other Sampling", and the following table gives details of samples of water, washed milk bottles, foodstuffs, etc. submitted for this purpose to the appropriate laboratory of the University of Dundee.

				Satisfactory	Fairly Satisfactory	Unsatisfactory
29	Mains Water (Routine)	...	...	29	—	—
60	Swimming Baths Water	...	...	57	—	3
11	Springs and Wells Water	...	...	10	—	1
39	Washed Milk Bottles	...	...	35	—	4
26	Imitation Cream	...	...	19	—	7
31	Dairy Cream	...	...	22	—	9
1	Bacon	...	...	1	—	—
2	Bone Grist	...	...	—	—	2
1	Butter	...	...	1	—	—
1	Buttermilk	...	...	1	—	—
2	Confectionery	...	...	2	—	—
1	Frogs' Legs	...	...	1	—	—
3	Mains Water (Investigations)	...	...	3	—	—
1	Sausage Roll	...	...	1	—	—
6	Swabs (Caecums of Pigs)	...	...	6	—	—
16	Sewer Swabs	...	...	15	—	1
13	Shell Fish	...	...	10	—	3
2	Baby Foods (Tinned)	...	...	2	—	—

Routine water sampling is undertaken to detect if there is recent potentially dangerous pollution and to check quality of supply; milk bottles taken from dairies are examined to check the efficiency of the washing process; foodstuffs are sampled to detect the presence of pathogens in cases of reported sickness and to determine fitness for human consumption; imported foods (such as Frogs' Legs and Shellfish) are also examined for this reason; routine checks for the presence of pathogens are made by examining swabs taken from the main sewer of the public slaughterhouses; and for the same reason follow-up swabs were taken from the caecums of pigs which had just been slaughtered.

The results of tests on milk bottles taken from dairies after they had been washed and were ready for filling showed a marked improvement on last year's figure of 19% failures. Only 10% failures were recorded this year.

The seven samples of imitation cream reported as being unsatisfactory were taken from four different bakehouses, but six of the samples related to the product of one manufacturer. Action involving improvements in methods of handling, etc. resulted in subsequent samples receiving satisfactory reports.

The nine cream samples which were the subjects of adverse reports all came from supplies produced outwith the City and involved one local pasteuriser and one producer in the County retailing from his branch shop in Dundee. The local dairyman receives supplies of milk from outwith the City by bulk tanker and after pasteurisation the milk is passed through his cream separator. He had a record of four failures during the year. Investigations showed that his sterilising process for cleaning the stainless steel separator unit was satisfactory but that a key used to assemble and dismantle same and which was part of the unit, was made of cast metal. It was recommended that this key be replaced. A follow-on sample proved to be satisfactory but

a further failure occurred later. On this occasion, however, it was discovered that the separator had broken down and a supply of cream had been obtained from outwith the City as a temporary arrangement. The time delay in this case was believed to be the reason for failure. Further follow-on samples were found to be satisfactory. Much more disturbing, however, was the failure of the County producer to provide a satisfactory sample, five successive failures being recorded. The County Sanitary Inspector was informed on every occasion in order that he could make investigations. A satisfactory bacteriological result was eventually recorded but this producer's cream is, as might be expected, being kept under constant surveillance.

Two samples of bone grist from Pakistan were positive for the presence of Anthrax bacillus and routine measures were taken in connection therewith.

From three samples of fresh frozen shrimps from Pakistan, *Staphylococcus aureus*, *Paracolon*, *B. cloacae* and *Alkaligenes faecales* were isolated, and the plate count gave a reading of more than a million organisms per gram. The consignment was eventually released by the Medical Officer of Health, however, on the understanding that proper controls would be exercised.

Of sixteen sewer swabs examined, *Salmonella panama* was isolated in one instance and this led to an investigation for a possible source within the slaughterhouses. Swabs of pig caecums were taken immediately after slaughter but examination showed them to be negative for pathogens.

The Labelling of Food Order, 1953 and Amending Regulations, 1956/61

The Labelling of Food (Scotland) Regulations, 1970

With certain exceptions, articles of food and drink which are pre-packed for retail sale are required to bear a label containing information as to the name of the packer or labeller, and giving an accurate description of the nature of the commodity by naming the ingredients in a prescribed manner. As a matter of routine, when samples of pre-packed foodstuffs are being procured under Food and Drugs legislation, and, indeed, at all times when carrying out duties in connection therewith, the inspectorate examine in detail the information printed on the labels to ensure that discrepancies do not go undetected.

Most manufacturers, however, are extremely careful when designing a label to include all the statutorily required information and at times the advice of the department is sought before the design of a label is finalised.

During the year under review only six irregularities were recorded in respect of this legislation and these concerned three manufacturers.

Four related to samples of pickles which were obtained from a small pickle factory which had recently been opened by a newcomer to the trade who was ignorant of the legal requirements. The samples of

pickled onions, pickled cauliflower, pickled beetroot and mixed pickles were taken in order that some assistance could be given to the trader in respect of his products. After analysis he was informed as to the extent of the information required to be given on the labels, and he readily accepted the advice given, his products now being properly labelled as required by law.

A complaint that a packet of dried mixed vegetables did not contain French beans, as was indicated on the packet, resulted in a sample consisting of three of the packets being submitted to the Public Analyst for checking. He reported that the vegetables present were potato, carrot, turnip, peas, onion and cabbage and that, in one packet only, there were a few pieces of green material which at first he thought may have come from French beans but were eventually identified as cabbage. This was considered to be a contravention of the Labelling of Food Order, 1953, and when the manufacturers were asked to comment on the matter, they apologised and explained that a genuine mistake had been made. Apparently, for some twenty years they had marketed their produce successfully in Scotland and very recently had started to supply the English market. The mixture supplied for England, however, contains French Beans and is sold in a pack of different design from that used for Scotland. The Scottish mixture contains cabbage but no French beans. Very recently the Scottish pack design was changed to bring it into line with that for England and when this was done the list of ingredients was inadvertently copied from the English pack, although the factory of origin continued to manufacture the Scottish product as it had always done. All very confusing, but since the matter was drawn to the attention of the firm they have amended their list of ingredients to conform to the requirements of the Order. In view of their explanation no further action was taken.

The Public Analyst reported in relation to a routine test sample of Lemon Flavouring that since the artificial colour tartrazine was present as an ingredient and not listed on the label, the information given, in his opinion, did not conform to the requirements of the Order. The firm hold that while under the 1953 Order it was probably necessary to provide a list of ingredients where the flavouring contained an artificial colour, the 1970 Labelling of Food Regulations superseded this Order and that in Schedule 2 of these Regulations flavourings when prepacked for sale as such are exempt from the requirements to specify ingredients; and although these Regulations do not come into force until 1st January, 1973, Paragraph 35(2) states that until revoked any provisions of the 1953 Order shall not apply in relation to any label which complies with a corresponding provision of the 1970 Regulations. This interpretation, however, was not acceptable and the matter had still to be resolved at the end of the year. Correspondence therefore continues.

The Preservatives in Food (Scotland) Regulations, 1962/71

Although it is essential that the consumer receives food in its most wholesome and palatable form, if undue waste is to be avoided some degree of chemical preservation is very often necessary. The law

recognises this by providing for the addition of certain chemical substances to foodstuffs for the purpose of inhibiting or delaying deterioration but restricts this availability to certain specified preservatives which are known to be harmless or non-toxic when used up to maximum prescribed quantities in certain specified foods.

Routine sampling is carried out to ensure that the provisions of these Regulations are observed and the following is some detailed information relative thereto :—

Mince. Of the thirty-six informal samples purchased, twelve were found to be in contravention of the Regulations in that they contained an excess of preservative (more than 450 parts per million sulphur dioxide) or contained preservative outwith the permitted period, which is June to September, inclusive. All twelve cases were followed up by the taking of formal samples of which six were found to be genuine. The six others all contained preservatives outwith the permitted period and one even containing more than that allowed from June to September. Proceedings were taken against all the offenders and two fines of £5, three of £10 and one of £15 were imposed by the Courts.

Of the twenty-four other formal samples obtained, preservative was found to be present in two outwith the permitted period and, again, one of these even had more than the quantity allowed from June to September. Fines of £3 and £15 respectively were imposed on the offenders.

Sausages. Of the thirty-six informal samples purchased, nine were found to contain sulphur dioxide in excess of the permitted amount of 450 parts per million. One other was in contravention in that it contained preservative without due notification of this being given to customers, as provided for in the legislation. Follow-on formal samples resulted in seven proving to be genuine and three being found to contain preservative in excess of the permitted amount. Proceedings taken against the offenders resulted in one fine of £5 and two of £10 being imposed.

Of the twenty-six other formal samples purchased one contained excess preservative and in this case the offender was fined £10 in the Sheriff Court.

The Sausage and Other Meat Product (Scotland) Regulations, 1967

These Regulations lay down minimum requirements for the composition of meat products, including sausages, and for complete meat products used as ingredients of other meat products; they also specify requirements for the labelling, description and advertisement of such articles of food.

When samples are submitted to check compliance with legislation covering the use of preservatives, a test for meat content is also carried out. Eleven informal samples of sausages were found to have deficiencies, five in lean meat content and six in both lean meat and total meat content. Two of these were also in contravention regarding the use of preservative.

Formal samples taken afterwards resulted in one vendor being fined £5 for selling sausages deficient in lean meat content to the extent

of 13.8%. All the other follow-on formal samples proved to be in compliance.

Of the other routine formal samples taken, one was found to be deficient in both lean meat and total meat content to the extent of 23% and 12.3% respectively, but since the time limit had expired before the vendor could be brought to Court no prosecution took place.

With regard to another sample, the Public Analyst reported that there was a deficiency in meat content due to a shortage of fat. The vendor was given a strong warning and immediately amended his recipe in order to bring his product up to standard. Private samples submitted by him to the Public Analyst confirmed that this was so.

Another sample, on analysis, showed a deficiency in total meat content of 9.2% and this resulted in the vendor being brought before the Sheriff and fined £5.

The Ice Cream (Scotland) Regulations, 1948/70

During the year the undermentioned applications for registration in terms of the Regulations of 1948 were approved by the Local Authority :—

For the Storage and/or Sale of Ice Cream	3
In respect of Vehicles for the Sale of Ice Cream on the Public Streets	2

At the end of the year the register kept in compliance with the Regulations showed the following totals :—

Premises Registered for the Manufacture, Storage and/or Sale of Ice Cream	29
Premises Registered for the Storage and/or Sale of Ice Cream	57
Vehicles Registered for the Manufacture, Storage and/or Sale of Ice Cream on the Public Streets	2
Vehicles Registered for the Sale of Ice Cream on the Public Streets	47

Chemical Analyses. The table in the Food Sampling section of the report which gives details in regard to Formal Sampling shows that twenty-three such samples of ice cream were obtained and submitted to the Public Analyst. Two of these were found to contain a proportion of fat other than butter fat and did not therefore conform to requirements since it is laid down in Regulation 6(2) of the latest piece of legislation — the Ice Cream (Scotland) Regulations, 1970 — that no person shall sell by retail any ice-cream, not in a container, under the description “ice-cream” if such contains any fat other than milk fat unless the words “contains non-milk fat” appear on a ticket or notice in immediate proximity to such description. Since this requirement only became law on 4th January, 1971, however, the vendors were merely warned and suitable notices were subsequently displayed by them. All the other samples were found to be genuine.

The 1970 Regulations apply to Scotland only and supersede, with amendments, the Food Standards (Ice-Cream) (Scotland) Regulations, 1959, and the provisions relating to ice-cream in the Labelling of Food Order, 1953, as amended. The Regulations specify compositional requirements for ice-cream and Parev ice, including any ice-cream and any Parev ice present as an ingredient of any composite article of food, and also specify requirements as to the labelling and advertisement of ice-cream.

Statistical information in regard to the quality of the ice-cream samples obtained by the department for analyses during the year under review which might be of interest is as follows :—

Fat			No. of Samples	Milk Solids-not-Fat			No. of Samples
Under 5%	...	...	—	Under 7.5%	...	...	—
5% - 6%	...	...	2	7.6% - 8.5%	...	...	4
6% - 7%	...	...	2	8.6% - 9.5%	...	...	2
7% - 8%	...	...	7	9.6% - 10.5%	...	...	2
8% - 9%	...	...	7	10.6% - 11.5%	...	...	3
9% - 10%	...	...	3	11.6% - 12.5%	...	...	2
10% - 11%	...	...	2	12.6% - 13.5%	...	...	8
11% - 12%	...	...	—	Over 13.5%	...	...	2

Further study of the Analyst's figures brings out the following :—

			Highest	Lowest	Average
Fat	...	...	10.80%	5.40%	8.04%
Milk Solids-not-fat	...	...	16.08%	7.50%	11.73%

One sample of Milk Ice was submitted for check and in connection therewith the report on the compositional quality was as follows :—

Milk Fat	Milk Solids-not-Fat
3.3%	7.6%

Milk Ice, incidentally, is required to contain not less than 2.5% of milk fat (and no other fat present) and not less than 7% milk solids-not-fat.

Bacteriological Examinations. Fifty-one samples of ice-cream were obtained for this purpose, fifteen being follow-on samples taken after receipt of initial unsatisfactory reports, and statistical details on the results thereof are as follows :—

Bacteria Count		No.	COLIFORM			
			Absent	Present in 1 tube	Present in 2 tubes	Present in 3 tubes
0 - 1,000	.....	13	9	3	1	—
1,001 - 2,000	.....	7	7	—	—	—
2,001 - 3,000	.....	1	1	—	—	—
3,001 - 4,000	.....	5	4	1	—	—
4,001 - 5,000	.....	2	1	1	—	—
5,001 - 10,000	.....	5	2	1	2	—
10,001 - 20,000	.....	1	1	—	—	—
20,001 - 30,000	.....	2	2	—	—	—
30,001 - 40,000	.....	—	—	—	—	—
40,001 - 50,000	.....	1	1	—	—	—
50,001 - 60,000	.....	2	2	—	—	—

Bacteria Count		No.	COLIFORM			
			Absent	1 tube	2 tubes	3 tubes
60,001 - 70,000	.....	—	—	—	—	—
70,001 - 80,000	.....	2	1	—	—	1
80,001 - 90,000	.....	1	—	—	—	1
90,001 - 100,000	.....	—	—	—	—	—
100,001 - 150,000	.....	2	1	1	—	—
150,001 - 200,000	.....	2	—	—	—	2
200,001 - 300,000	.....	1	—	—	—	1
300,001 - 400,000	.....	2	—	—	—	2
400,001 - 500,000	.....	—	—	—	—	—
> 500,000	.....	2	1	—	—	1
		51	33	7	3	8

Note : Presence in 1 tube only is considered negative.

The arbitrary standard laid down by D.H.S. Circular No. 82/1960 recommends that ice-cream should not contain more than 50,000 bacteria per gram and no coliform bacteria in one-hundredth of a gram, and if the product does not satisfy this standard it can reasonably be deemed to have failed because of unhygienic methods used in manufacture, storage or sale.

Reference to the preceding table shows, therefore, that 17, or 33.3%, failed to measure up to this recommended standard, a slightly lower percentage than that recorded last year. Of the manufacturers involved two only carried out the final process of manufacture in that the liquid mixture supplied to them was simply frozen into ice-cream on the premises. Improper cleaning procedures definitely accounted for two failures, refrigerator breakdowns possibly accounted for three more, in another case defective equipment was to blame, but in eleven instances no reasonable explanation could be found, the cleaning processes, premises, handling, etc. all appearing to be satisfactory. It must be appreciated, of course, that it is not always possible to pinpoint reasons for unsatisfactory reports, and this can often be accounted for by the fact that results of examinations are not received until a week or more after the actual taking of the sample so that there is a time lag before the necessary investigations can begin.

Difficulties which are experienced in this direction can be emphasised by relating investigations which were carried out at the premises of a retail manufacturer who makes ice-cream from reconstituted cold mix powder. A first sample taken from his conservator in the front shop gave an average total count of 121,000 and was negative for coliform organisms. As his equipment appeared clean and production methods seemed to be satisfactory, a follow-on sample was taken, the result for coliform being again negative and the count being given as 51,000 — just over the recommended limit of 50,000. At this stage it was decided to renew the blades of the freezer unit as they were slightly worn. Yet another sample was taken and this gave the colossal count of 4,293,333, although still negative for coliform. At this juncture the manufacturer

decided to submit samples privately for examination and these gave satisfactory results, the counts being low and the coliform negative. Still another sample was taken by the department's Sampling Officer and for the first time the result for coliform was positive and the bacterial count, at 200,000, still very high. Investigations were still going on at the end of the year.

Vehicles from which ice-cream was sold were generally found to be in a satisfactory condition with regard to cleanliness, equipment and methods of handling and no serious contraventions were recorded.

Milk and Dairies (Scotland) Acts, etc.

At 31st December, 1971, the register maintained by the department showed that there were in the City :—

- 2 Producers of Milk and
- 520 Retail Purveyors (including Producer-Retailers and Bottler-Retailers) comprising:—
- 497 Purveyors from Shops, Milk-Houses, etc.
- 9 Purveyors from Vans
- 10 Purveyors from Vans also licensed in respect of Shops, Milk-Houses, etc.
- 4 Purveyors resident outwith the City but Registered to Purvey within from Vans

All the milk produced at the only two dairy farms which remain within the City boundary is directed for pasteurisation. The number of cows in milk at these premises at the end of the year was 182, and 39 visits were made by the inspectorate to check that the requirements of the bye-laws, etc. were met, particularly in regard to condition of cattle, byres, equipment and utensils, and methods of production, etc.

In byres exempt from registration under the legislation it was found that at the end of the year only one cow was being accommodated.

A total of 1,004 visits were paid during the year to other premises included on the register, the greatest proportion of these visits being in connection with the issue of licences under the Milk (Special Designations) Orders.

The Milk and Dairies (Scotland) Order, 1934

Compliance with the provisions of this Order is checked when other legislation relating to milk is being enforced and nothing untoward was discovered during 1971.

Milk Consumption. The daily direct consumption of milk in the City, so far as can be ascertained, is approximately 14,705 gallons, made up as follows:—

	Gallons
Premium Jersey	5
Premium	340
Standard	33
Pasteurised	14,307
Ultra Heat-Treated	20
Total	14,705

	Gallons
Brought forward	14,705
Add to this,	
Milk used in the manufacture of cream ...	166
And the Full Amount is ...	<u>14,871</u>

Sterilised milk is at the moment not on sale in the City.

Of the daily direct consumption (14,705 gallons), 8,044 gallons (54.70%) are processed in Dundee and of the total consumption (14,705 gallons) :—1,826 gallons (12.42%) are sold in bottles; 6,020 gallons (40.94%) are sold in non-returnable containers, and 198 gallons (1.35%) are sold in bulk to restaurants, etc.

A recent survey carried out by the department, however, indicated that three-quarters of the milk processed within the City is now retailed in sachet and carton packs whereas milk coming from outside agencies for retail sale within the City is approximately two-thirds bottled and one-third cartoned.

Milk Quality. Five formal and one hundred twenty-three informal samples of milk were obtained during 1971 for the purpose of chemical analyses, and the following are details of the average fat and non-fatty solids contents as taken from the Public Analyst's reports :—

Month	Number of Samples	Average Milk Fat	Average Non-Fatty Solids
January	6	3.66	8.56
February	15	3.89	9.33
March	9	3.76	8.63
April	7	3.82	8.52
May	13	3.60	9.32
June	11	3.83	9.32
July	8	3.70	8.89
August	8	3.82	8.94
September	12	4.02	8.87
October	14	4.03	8.81
November	11	4.02	8.78
December	14	4.16	8.80
	<u>128</u>	<u>3.86</u>	<u>8.90</u>

The following information was also obtained from the same source :

Milk Fat. The highest figure recorded was 5.90% and the lowest 3.25%. Samples showing a content of 4% and over numbered 32.

Non-Fatty Solids. The highest was 11.42% and the lowest 8.24%. Samples containing 9% and over numbered 31.

The statutory minima for genuine milks are :—

Milk Fat: Jersey, Guernsey, South Devon and Channel Islands'						
Milks	...	...	...	...	...	4%
Other Milk	...	...	...	...	...	3%
Premium Milk—For	“ Designation” purposes only					3.50%
Non-Fatty Solids : All Milks	...	...	...	...	...	8.50%

All formal samples taken during the year proved to be genuine but nine informal samples failed to conform in so far that all were deficient in solids-not-fat, the percentage deficiencies varying from 0.33 to 3.15. Eight samples were of milk supplied from outwith the City and one was from a local pasteuriser. Eight of the samples were of Pasteurised Milk and one was Standard. In six instances the freezing point (Hortvet) figure indicated the presence of added water. In the cases concerning milk produced outwith the City suspected of containing added water the usual practice of notifying the dairymen and/or the appropriate local authority was followed and follow-on samples taken later. The local pasteuriser's milk had a deficiency of 0.33% solids-not-fat and there was a slight indication of added water, but investigation could reveal no cause for this and the dairyman could offer no explanation. Other follow-on samples from this dairy proved to be genuine.

The Milk (Special Designations) (Scotland) Orders, 1965/66

The following licences were in force at the end of the year :—

PRODUCERS OF STANDARD MILK	...	...	2
PASTEURISERS OF MILK	...	...	4
DEALERS IN PREMIUM MILK	...	...	32
do. STANDARD MILK	...	...	21
do. PASTEURISED MILK	...	...	524
do. STERILISED MILK	...	...	180
do. U.H.T. MILK	...	...	22

In addition, four dealers possessed supplementary licences, two for the sale of Premium Milk, one for Standard Milk and one for both Standard and Pasteurised Milks.

The revolution in the packaging of milk in the local dairy trade which was referred to in last year's report, namely the introduction of polythene bags or sachets, continues. At the end of the year three out of four pasteurisers in the City were almost entirely geared to this type of packaging and the fourth had introduced a new sophisticated carton-filling machine using a square-type waxed carton.

Space saved by these new, compact machines and the disposal of obsolete equipment have enabled plans to be made by the dairymen concerned for more satisfactory layouts within their existing premises and the extension of bulk and refrigerated storage.

Milk for Bacteriological Examination

The following table relates to samples of Designated Milks submitted to the University of Dundee for examination :—

Designation	Number Taken	Reported as	
		Satisfactory	Unsatisfactory
Premium Milk	70	32	38
Standard Milk	35	19	16
Pasteurised Milk	248	217	31
Sterilised Milk	—	—	—
Ultra Heat-Treated Milk	7	7	—
	360	275	85

Tests on which the samples failed are as follows :—

Designation	Presence of Colliform	Bacteria Count	Phosphatase Test	Colliform and Bacteria Count	Phosphatase and Colliform Tests	Total
Premium Milk	13	17	—	8	—	38
Standard Milk	—	10	—	6	—	16
Pasteurised Milk	31	—	—	—	—	31
Ultra Heat-Treated Milk	—	—	—	—	—	—
	44	27	—	14	—	85

Sixty-six of the failures (38 Premium, 8 Standard and 20 Pasteurised) all came from premises outwith the City, the remaining 19, or 22.4%, coming from local sources. A very disappointing figure indeed.

The failures from local sources were, of course, duly investigated and defects remedied. Failures regarding incoming milks were reported to the appropriate authorities for investigation.

Additional to the figures mentioned, however, were three samples of Standard Milk from producers outwith the City taken for Ring Test purposes to check for the presence of *Brucella abortus*. The result in each case was negative.

Non-Designated Milk. The only non-designated milk produced in the City is at one byre which is exempt from registration. One cow is kept and the milk is for the use of the producer and his family only.

School Milk. Thirty-six samples of Pasteurised Milk supplied to schools in the City were taken for examination. Of these, five were reported as being unsatisfactory and the results relative thereto are included in the foregoing tables.

Antibiotics in Milk

During 1971 the following results were obtained from twenty-one samples examined.

19, or 90.48%, were found to be free of antibiotics.

1, or 4.76%, was found to contain less than 0.02 international unit of antibiotic per millilitre of milk.

1, or 4.76%, was found to contain 0.02 international unit of antibiotic per millilitre of milk.

A maximum of 0.02 international unit of penicillin in 1 millilitre of milk is the arbitrary standard which has been laid down by the Scottish Milk Marketing Board for the purpose of price penalties. Of course, for a milk to be regarded as "Genuine" it should be entirely free of antibiotics.

The two milks which gave positive results both came from a producer whose premises are outwith the City. The facts concerning the first mentioned positive result were reported to the appropriate official of the outside local authority so that the matter could be investigated. After the second positive result, however, a formal sample was procured but the result in this case was negative.

In addition to the above, a sample of Pasteurised Milk submitted for routine test for compositional standard (and passed as satisfactory) was reported by the Public Analyst as containing 0.04 international unit of penicillin per millilitre of milk. This test for antibiotic was carried out as part of a research survey being carried out by the Public Analyst, but the offender in this case could not be traced since the sample was from a bulk tanker supply to the pasteuriser's premises.

Milk Vending Machines

Twenty-four licences permitting the sale of Pasteurised Milk from approved coin-operated vending machines were in force during the year, all but one being under the control of one person. Two have street sitings and the remainder are within factories and offices, a residence hall and a college.

Of forty-eight samples procured from these machines for bacteriological examination, twelve were found to be unsatisfactory. Follow-on samples, in each case, however, complied with the tests.

Twelve samples were also taken for checks on statutory compositional compliance and four of these failed to meet the standards laid down. Investigations revealed that frequently the bulk tanker delivered milk to the processors' premises when none of the firm's own private laboratory staff were present to take check samples. The matter was reported to the Scottish Milk Marketing Board and the difficulties mentioned, so far as is known, were overcome.

These machines were made the subject of special visits on 94 occasions and their condition was also, of course, carefully noted every time a sample was procured.

Milk Dispensing Machines

Six informal samples were taken to determine compositional standard and, as already reported in the appropriate table, all were found to be satisfactory.

Of forty-two samples taken for the purpose of bacteriological examination, seven were found to fail because of the presence of coliform. The milk for use in these machines is all supplied from outwith the City and the appropriate official of the only local authority involved

was notified in every instance. Investigations under this heading also resulted in the initiation of new cleaning procedures in connection with Pergall filling units and follow-on samples were satisfactory.

New Food Legislation

During the year the Preservatives in Food (Scotland) Amendment Regulations, 1971, came into operation amending existing legislation so as to :—

- (a) impose limits on the amounts of sodium nitrate and sodium nitrite which may be added to bacon and ham;
- (b) impose a limit on the amount of sodium nitrate which may be added to pickled meat; and
- (c) impose in respect of all pickled meat the limit on the amount of added sodium nitrite which formerly applied only to cooked pickled meat.

By the principal Regulations, subject to the same limits, potassium nitrate and potassium nitrite are permitted alternatives for sodium nitrate and sodium nitrite respectively.

Food Hygiene (Scotland) Regulations, 1959/1966

The results of the work undertaken in this field during the year may be reviewed with mixed feelings.

On the credit side can be placed an increase in the number of well planned and conducted food businesses, the removal of many businesses which have been operating from sub-standard premises, the lectures and other facilities for food hygiene education provided by this department and the general public's increasing exercise of its right to demand clean food.

On the debit side, however, malpractices by staff engaged in the food industry continue to be encountered. These appear to originate most frequently with the employment of new, untrained personnel and the lack of adequate supervision over them, and serve to highlight the paramount importance of inspection, supervision and education. In this connection it has to be reported that the implementation of literally constantly increasing volumes of legislation continues to place such extra burdens on the staff that much less time is available than is desirable for ensuring completely adequate supervision with regard to every aspect of the Regulations.

An increasing amount of time is also having to be devoted to advising architects, tradesmen, new shopkeepers and others regarding matters to ensure compliance with the legislation, and while the opportunity for this is greatly appreciated, and the advantages obvious, this is another time-consuming factor which cuts down the amount of field work in relation to existing premises.

Outstanding problems which remain in respect of food premises cover such items as refuse storage (often inadequate, unsuitably placed and aggravated by constant vandalism) and improper use of washing and other facilities provided, particularly in the smaller types of food premises.

New businesses of the small restaurant/snack bar type continue to increase and are generally welcomed for the excellent use which is made of limited space in providing clean, modern equipped places with adequate toilet facilities for both patrons and staff. Fish restaurateurs have also risen to the occasion to provide well-equipped and hygienically conducted premises whenever they have had to move from older establishments. However, a constant vigilance is exercised in discouraging prospective food traders from moving into old, inadequate premises, especially when they have little in the way of capital to finance their ventures. The same attitude is almost invariably adopted where the persons themselves have no experience of the food trade and would appear to be interested only in the financial rewards which might accrue because of the increasing need by the public for this service. The complexity of the legislation which has to be complied with and the responsibilities are such that only experience and finance can nowadays overcome them.

Another matter of particular importance which must be mentioned is the close attention which ought to be given (but far too often is not) to the storage facilities for foodstuffs which are eventually to be offered for sale to the public from refrigerated display cabinets. Instances have been noted of food being stored in back shop premises (a practice which unfortunately, would generally conform to the Regulations in that the food was being stored "in a cool, ventilated place") and subsequently, perhaps after a considerable time, being removed from their containers and placed in refrigerated display cabinets for exposure for sale. To the public they appear to be being stored and exposed for sale in an ideal manner when in practice mould growth may have started and this increases rapidly under home storage conditions. In many cases foods such as cheese wrapped in cellophane, and so on, are not examined closely enough by shop staff before being put on display in this way after being taken from their cardboard containers.

Another cause for concern is the increase which has taken place in recent years of infestations of food premises by mice. This, it is found, is demanding quite a lot of extra supervision notwithstanding that the traders do everything they can to get rid of the pests. The problem is, of course, as is mentioned in another part of the report, that there has been a very considerable increase in the size of the mouse population in the City which have become immune to Warfarin.

As was reported last year, the small and inadequate premises occupied by many Chinese restaurateurs in the City are difficult to maintain and provide a reasonable standard of hygiene because of the nature of their business and, again, special attention had to be given to this problem by the inspectors. In one case the storage facilities for food in a basement cellar were found to be deplorable and a notice was served on the occupier requiring him to discontinue the use of the cellar as a food store. Language difficulties, of course, continue to provide problems with this section of the community.

Table of Analysis of Food Hygiene Inspections

Type of Premises	Total No. of Premises	Total No. Gen. Inspections	Total No. Other Inspections
Class A			
Bakehouses	44	134	7
Bakers' Shops	111	194	9
Butchers	102	270	6
Confectioners	114	183	10
Fishmongers	28	74	21
Fried Fish Shops	71	206	90
Fruiterers	50	80	5
General Stores	76	259	22
Grocers	213	350	23
Poulterers	2	3	1
Class B			
Boarding Houses	33	87	35
Cafes	38	188	21
Canteens	70	262	15
Clubs	57	60	12
Homes	12	34	3
Hotels	24	119	12
Public Houses	140	203	6
Restaurants	40	361	94
School Meals Services	86	193	10
Class C			
Poultry Packing Stations	—	—	—
Meat Processing Factories	8	19	1
Other Food Factories	18	57	8
Class D			
Vehicles	147	221	—

The above statistical information is on the lines requested by the Scottish Home and Health Department and records that 3,968 visits of inspection covering 1,484 premises were carried out during 1971.

As a matter of routine, many relatively minor faults in food-handling and discrepancies in carrying out the objectives of the Regulations were dealt with by immediate on-the-spot advice to food-handlers or persons in charge. Written intimations to owners were, of course, served as necessary requiring specific improvements. The deficiencies were checked on return visits to ensure that remedial measures had been taken.

Infringements numbered 1,567 in relation to premises, while the same number, 1,567, defects or deficiencies were recorded as remedied at the end of the year. The last mentioned figure, however, covers some matters carried forward from 1970.

Actual complaints lodged at the department concerning food premises numbered 133 and related to :—

Unhygienic Premises	1
Unhygienic Methods	18
Vermin Infestation	16
Choked Drains/W.C.s/Sinks/Burst Pipes	35
Smell or Fumes	10
Improper Refuse Storage/Disposal	22
Poor Ventilation	1
Miscellaneous	3
Unfounded	27

Although this is an increase compared with the figure for last year it does not necessarily represent an increase in the number of premises found to be unsatisfactory as a result of the investigation of complaints. As was the case last year, a high proportion of the complaints only indirectly involved the food premises. For example, improper refuse storage and disposal in the majority of cases referred to unsightly bin stances at the backs of shops, while the vermin infestation in most instances was only in close proximity or in the area of the shop precincts. Miscellaneous complaints referred to dust entering food premises from adjoining demolition sites and in each case necessary steps were taken so far as was reasonably practicable to prevent contamination of foodstuffs. As can be seen, of course, the year also brought its usual quota of unfounded complaints.

In addition to the above, however, three complaints were lodged in connection with street trading vehicles from which food is sold. During the course of 221 inspections of food vehicles, 135 contraventions of a minor nature were recorded, all of which were satisfactorily attended to. Many of these visits of inspection were made in connection with street trading legislation reported on under the heading 'Dundee Corporation Orders, 1957 and 1969'.

Bakehouses

There were 44 such premises on the department's register at the end of the year, all coming within the category of Mechanical Factory Bakehouses.

The total is therefore two less than the figure for 1970 and represents the closure of two small mechanical bakehouses, one large mechanical bakehouse and one certificated basement bakehouse, with the addition to the list of two small establishments of the mechanical variety.

The closures referred to were all occasioned by redevelopment activities in the situate areas and this represents a continuation of the pattern mentioned in last year's report.

There are now no basement bakehouses on the register for which a certificate of suitability would be required in terms of the Factories Act. A basement bakehouse is one in which any baking-room is so situated that the surface of the floor is more than three feet below the surface of the footway of the adjoining street, or of the ground adjoining or nearest to the room.

The regular cleaning of all parts of bakehouse premises, equipment, etc., of course, remains paramount in a business which has a flour-dust and spillage problem with which to contend, and while the larger establishments scarcely ever present any problem to the inspectorate the same cannot always be said for the smaller types of businesses where, for economic reasons, it is seldom possible to employ separate cleaning staff. The smaller bakehouses, therefore, demand much more constant attention and supervision.

In all, 182 routine visits were made to bakehouse premises during the year under review. Contraventions discovered and dealt with numbered 143.

The Food (Preparation and Distribution of Meat) (Scotland) Regulations, 1963

The enforcement of these Regulations is the responsibility of this department in so far as they apply to the privately operated wholesale meat markets and places where offals are prepared and processed at the public slaughterhouse.

Regular and periodic visits of inspection were carried out during the year but, as usual, difficulty is experienced in acquiring an acceptable standard of hygiene because of the age and structure of the buildings. Modernisation is the only answer, a matter which is still under consideration by the Corporation. Cleanliness, hygiene, sterilisation of equipment, storage of refuse, etc. were all given due attention, however, and warnings issued whenever infringements of the legislation were observed.

Vehicles used for the transport of meat by road also come within the scope of the Regulations and special attention was therefore given to those retail butchers' vehicles used for transporting meat from the meat markets to their shops. Those routinely examined were generally found to be up to standard.

Thirty-one visits were paid to premises during the year, and seventy-one vehicles were examined.

It may be of interest to record that it was found necessary to write to a firm of multiple retail butchers and specialist meat contractors concerning one of their retail managers who was discovered carrying unwrapped meat from one of their vehicles into the butchery section of a large store while not wearing a protective head covering. The firm apologised and gave an assurance that there would be no recurrence of this practice.

Shops Act, 1950 and the Shops (Early Closing Days) Act, 1965

The process of change in the composition of the City's retail trade continues and very considerable difficulty is nowadays experienced in keeping records up-to-date, particularly when redevelopment is responsible for producing almost continual movement of businesses from one part of the City to another as the demolition of older properties proceeds. Recording is also made difficult by the way in which traders are prepared to change rapidly from the sale of one commod-

ity to another as a result of increased competition. Examples of this may be instanced by poulterers who have become fruiterers, thus forcing fruiterers to become poulterers, pet animal dealers hoping to become grain merchants, and so on.

So far as can be ascertained, however, there were at the end of the year some 1,899 businesss in the City which came within the scope of this legislation and these are categorised in the following table :—

Bakers	111	Grocers	213
Booksellers	42	Hairdressers	129
Boot and Shoe Dealers	61	Ironmongers	23
Brokers	20	Music and Radio Dealers	28
Butchers	102	Newsagents and Tobacconists	79
Chemists	51	Opticians, Watchmakers, Jewellers	46
Coal Dealers	7	Paint and Wallpaper Merchants	63
Confectioners	114	Pet Stores	9
Cycle and Motor Agents	46	Publicans	140
Departmental Stores	18	Restaurants, Cafes, etc.	149
Drapers and Outfitters	129	Miscellaneous	122
Electrical Dealers	42		
Fancy Goods and Toys	38		
Fish Merchants	28		
Fruiterers and Florists	50	Total	1,899
Furnishers	39		

The provisions of the Shops Act, 1950 which still remain in force relate, in the main, to closing hours, assistants' half-holidays and hours of employment for young persons; the Early Closing Days Act deals with the half-day closing of shops for trading.

Routine inspections were made to ensure that appropriate notices were displayed inside the premises as required by the legislation; also, under the last-mentioned Act, that a notice was displayed at the shop entrance intimating the day selected as the Early Closing Day.

Contraventions discovered numbered 73, mainly in respect of failure to keep records of hours of employment of young persons, failure to display abstracts of the Act, etc. In most cases the appropriate records and notices had originally been properly kept but it was the old story of age, re-decoration of premises, etc., being the excuse for their disappearance. There was no trouble concerning replacements, however, once attention had been directed to the matter.

Only two complaints were received in 1971. One concerned the owner of a boutique who felt that by remaining open every afternoon she could, by rotation of staff duties, give her employees a 40 hour - 5 day week. She suggested that she would close if necessary on one morning, but her attention had to be drawn to the fact that the legislation did not allow for such bargaining.

The other complaint was from a shopkeeper who alleged that the proprietor of a mini-market was not observing the law. This person was duly warned that he must close his premises not later than 1 p.m. on one afternoon each week.

In exercise of the powers conferred on them by sub-section (4) of Section 1 of the Shops Act, 1950, as amended by Section 2 of the Shops (Early Closing Days) Act, 1965, the Corporation made an Order cited as "The Dundee (Central Area) Early Closing Day Exemption Order, 1971," which came into effect on 6th February, 1971. This exempts all shops in the prescribed central area of the City from having to close early on one day each week. There is no compulsion to remain open, however, and in fact quite a number of the shopkeepers still continue to close for their usual half-day. One of the advantages of six day trading is that it very often enables employees to get the benefit of a five day week, but their rights to, at least, a weekly half-holiday are, of course, still protected.

Young Persons (Employment) Act, 1938

Several enquiries relating to this legislation were received during the year, particularly in regard to permitted hours of employment, periods for meal breaks, late hours of work, etc.

In some cases queries over working hours were closely related to remuneration, the latter being the more important issue to the enquirer, and no contravention of the Act was involved.

No specific complaints were made and no infringements were discovered.

Offices, Shops and Railway Premises Act, 1963

A comprehensive survey of all business premises was carried out at the end of the year and 2,070 registered premises were found to exist. This is a decrease of 92 on last year's figure, accounted for, as usual, mainly by closure of small retail shops for economic reasons and demolitions in areas of redevelopment.

New registrations numbered 235, of which 118 were offices and 89 shops. Cancellations resulting from change of occupancy, contraction to family businesses or closure and demolition, totalled 246.

768 premises, comprising 107 offices, 654 shops and canteens and 7 warehouses, because of the family nature of the business or insufficient hours worked therein, were found to be outwith the scope of the Act, and it is respectfully suggested that serious consideration should now be given towards introducing new or amending legislation with a view to reducing considerably, or removing entirely, such exemptions; 768 out of a total of 2,838 is far too high and in many cases makes nonsense of the purposes of the legislation.

In only one instance did a doubt arise with regard to interpretation concerning registration. This related to certain University buildings for which application had been made for registration but in which employees were engaged in work which could not be classified as either administrative or clerical. After discussion with H.M. District Inspector of Factories, the matter was referred to the Central Advisory Inspectorate, Glasgow, as a result of which the premises were excluded. Relative thereto, however, it might be pertinent to observe that, statutorily at least, employees in such places are deprived of the protection of both factories and offices, shops and railway premises

legislation. Although there is an understanding that the Factory Inspectorate are prepared to give advice on request regarding safety precautions, etc., there is nothing actually laid down which requires a University to seek such advice and guidance.

The following table gives a list of defects or deficiencies found during the year and contraventions, including those occurring in previous years, which were abated :—

Section of Act	DEFECT	Number of Contraventions	
		Found	Abated
4	Cleanliness—Lack of	147	41
5	Overcrowding	—	—
6	Heating—Inadequate	14	8
	Absence of Thermometer	55	47
7	Ventilation—Inadequate	63	20
8	Lighting—Defective or Inadequate	13	11
9	Sanitary Accommodation—Insufficient	5	4
	Defective	41	27
10	Washing Facilities—Insufficient	1	1
	Defective	24	14
11	Drinking Water/Vessels—Lack of	—	—
12	Clothing — Lack of Accommodation	4	4
	and/or Drying Facilities	4	6
13	Sitting Facilities—Insufficient	4	—
	Unsatisfactory	6	6
15	Eating Facilities—Lack of	1	—
16	Floors, Passages and Stairs—Defective	381	138
	Access	39	18
17	Machinery—Dangerous	27	19
	Warnings	106	42
24	First Aid	50	62
49	O.S.R. 9	68	67
		<u>1,053</u>	<u>535</u>

In addition to the foregoing 535 contraventions which were abated as the result of intimations or notices being served, 465 items were deleted because of the cancellation of 246 registrations.

A special survey was carried out during 1971 to obtain necessary statistical information concerning the existence of lifts, hoists, escalators, etc. within registered premises in the City, details concerning which are as follows :—

Passenger	Passenger/ Goods		Dumb Waiters		Escalators	Pulley Hoists	Jib Cranes
	Electrical	Manual	Electrical	Manual			
59	24	39	1	15	7	8	2

Six examination reports, in the prescribed form, on four electric service lifts, an electric passenger/goods lift, and an electric hoist block, were received in pursuance of paragraph 6(3) of the Hoists and Lifts Regulations, 1968. In each case the owner or occupier responsible for repairs was requested to inform this department when the necessary work had been completed, and inspection was subsequently made to

confirm that the repairs had been carried out within the period specified in the reports. Worn and splintered suspension ropes, brakes out of adjustment, a faulty gate lock, excessive running play and worn motor gear pinion teeth were matters which had to be attended to. In several premises in the central area of the City, however, it was discovered that examination reports were not available for inspection as required under the Regulations. This arises from the practice of the Engineer/Surveyors forwarding these to the firms' headquarters in other cities — usually south of the border — and one wonders if, when new or amending legislation is being promulgated, it might be considered worth while requiring, statutorily, that copies of all such certificates must be kept on the premises for the stipulated period. In all cases where the examination reports could not be produced, of course, the manager was requested to obtain same as soon as possible.

Cleanliness. There can be no doubt that since the inception of the legislation there has been a very considerable improvement in the cleanliness standards of offices and shops generally, and the increase in the number of premises requiring attention under this heading (147 cases as against 47 last year) is largely accounted for by deficiencies in older administrative buildings in the University complex whose registration and inspection had been delayed pending the completion of an extensive programme of alterations and additions.

Temperature and Ventilation. In five of the fourteen cases of inadequate heating no facilities of any sort had been provided but the deficiencies were rectified before the onset of winter.

At the beginning of the year a complaint was received from attendants on the Tay Road Bridge concerning inadequate heating arrangements in the toll collection booths during severe weather. It was found that in addition to the issue of suitable warm clothing to the employees, electric bar heaters were provided in the booths, while canteen and other facilities were available in the nearby administrative building. Maintenance of the legal minimum temperature at all times, especially during the night in certain weather conditions, was considered to be impracticable, but a recommendation was made that the bar heaters could, with advantage, be replaced by convector fan units.

Lighting. All thirteen cases of inadequate lighting recorded during the year arose from the absence of artificial lighting in sanitary facilities.

Sanitary Accommodation and Washing Facilities. Property owners in the City have co-operated fully in providing additional sanitary accommodation where required and it was pleasing to observe during routine inspections that facilities in many older premises had been modernised without direction or recommendation from this department — a good example of what can be achieved by the mere existence of appropriate legislation.

Prosecutions. Proceedings were instituted under Section 64(1) of the Act against a shopkeeper who, after being prosecuted and fined for several offences committed during the previous year, had nevertheless

failed to remedy the insanitary conditions and structural defects. A fine of £50 was imposed, and the necessary remedial measures were eventually carried out.

Accidents. Thirty notifiable accidents, all non-fatal, were notified during the year. This is a decrease of ten on the 1970 figure. All were investigated and in six cases written recommendations were made for safety measures to be taken in order to prevent or minimise the recurrence of similar mishaps.

The following table gives the classification of accidents by primary cause, with comparable figures for 1970 :—

CAUSE	Number of Accidents	
	1971	1970
Machinery	2	—
Transport	1	1
Fire and explosion	—	—
Hand tools	3	6
Falls of persons	16	15
Stepping on or striking against object	5	8
Handling goods	1	5
Struck by falling object	1	4
Not otherwise specified	1	1

Both accidents under the heading of machinery involved the use of gravity feed food slicing machines.

In the first case the woman operator held the foodstuff on the carriage by hand giving as an excuse a need for urgency and therefore an insufficient time availability to reduce the length of the meat to fit the carriage so as to enable the pressure plate to be used.

The second case also involved a woman operator who placed her hand over the top of the perspex guard to hold the last small portion of a polony sausage against the blade of the machine because the rounded end of the sausage made use of the pressure plate difficult. The firm was instructed to ensure that rounded ends were removed before applying the pressure plate or, alternatively, that this type of food be sliced on a horizontal machine where there is cross sectional holding as opposed to end pressure application.

Copies of leaflet SHW 14, "The Safe Use of Food Slicing Machines," were distributed to the many food premises and restaurants in the City which make daily use of these units and it is to be hoped that the explicit directions and illustrations given in the leaflet, together with the personal advice which the inspectorate are always ready to offer on this matter, will engender an increasing awareness of the dangers connected with the use and cleaning of all types of food slicing machinery.

Dundee Corporation Orders, 1957 and 1969

Under the various sub-headings which follow are reports concerning the administration of the parts of this legislation which are the responsibility of this department.

Hairdressers, Barbers, Ear-piercers and Tattooists

Hairdressing establishments on the register at the end of the year numbered 126, and visits made relative thereto were mainly in connection with applications for the registration of new businesses or where alterations were proposed or had been carried out. On many occasions advice was sought by persons contemplating starting up new businesses and by Architects concerning the requirements of the bye-laws.

It is pleasing to note that, with one exception, all premises were found to be conducted hygienically and generally complied with the requirements of the legislation. It has to be admitted, of course, that this type of business gives little cause for concern, and because advice is nowadays usually requested before new businesses are set up even the smaller establishments find little difficulty in conforming to the standards laid down since the bye-laws limit the number of persons to be accommodated in relation to space available, control requirements as to wash-hand basins, deal with sanitary accommodation availability, and so on.

As has been mentioned, only one establishment failed to satisfy the department, and this was the subject of the one complaint received during the year. The premises concerned were situated in a tenemental property located in an area due to be redeveloped in the immediate future. Structural deterioration was at the root of the trouble and the main complaint concerned the condition of an outside toilet which was shared by other tenants in the property. The necessary repair works were, of course, soon carried out and the convenience put in proper working order.

Six new premises were registered during the year and two existing registrations had to be cancelled when the businesses were closed down.

One application was received in connection with the registration of premises where ear-piercing is carried out and this was granted after a satisfactory report had been obtained. Conditions to be observed in such a case cover such things as the cleanliness of premises, instruments, towels, materials and equipment, the cleanliness, etc. of the persons employed, as well as their clothing, the provision of suitable washing facilities, and so on. There are as yet no bye-laws in force in the City relating to such businesses.

So far as is known, there are no practising tattooists in the City and no registrations have been approved in connection therewith.

Theatres, Cinemas and Dance Halls

As routine during the year, and immediately before the annual renewal of licences, all 39 premises in this category were inspected so far as the interests of this department are concerned, that is to say, primarily in regard to sanitary accommodation, ventilation, cleanliness, and to ensure that the premises were being satisfactorily maintained and conducted in accordance with local requirements. Only nine matters required attention, relating mainly to cleaning and redecoration of walls and ceilings (a major operation in some instances), ventilation

of toilets and renewal of cracked wash-hand basins, and all were readily attended to by the management when intimation was given.

One old established cinema which was originally one of the first theatres in the City was completely re-modernised during the year under review.

Places for Public Refreshment

These include cafes, restaurants, tea-rooms, etc. which provide meals and light refreshments (other than intoxicating liquors) after certain evening hours and on Sundays, and because of this require to be registered by the Local Authority. Such places are subject to certain by-law controls.

Five new premises were opened during the year covering such services as the provision of snacks, ice cream dishes, continental meals, fried fish and chip meals, etc. All were equipped with the very latest cooking and washing facilities, provided with excellent toilets for patrons and staff, and furnished tastefully with modern fittings.

All registered Places for Public Refreshment were, of course, subject to the usual supervisory control by the inspectorate.

Street Traders

A satisfactory measure of control is exercised in Dundee in that no person may use a vehicle for street trading without first obtaining a licence from the Corporation authorising him to carry on such a business, and so far as food traders' vehicles are concerned a licence is only granted after the vehicle has been examined by this department and approved as complying with food hygiene legislative requirements. Such licences are renewable annually.

Street traders are now well aware of the department's standards for food vehicles and co-operation with owners is invariably experienced, but many mobile shops are operated by employees and much depends on the person in charge of the vehicle as to the standard of hygiene prevailing under trading conditions. Many operators have a tendency to be careless in the maintenance and use of hand washing facilities and in the storage of refuse. For this reason opportunity is taken whenever possible to check on conditions under which trading takes place. Generally, however, a satisfactory standard is achieved.

During the year 178 inspections were made of street traders' vehicles.

Conveyance of Waste Food

The local legislation requires that any waste food or swill which is intended for animal consumption, if carried through the streets, should be contained in suitable covered receptacles to prevent nuisance from smell. Several contractors collect waste food from restaurant kitchens, hotels, etc. and although metal containers are used, they are not at times provided with covers. It is necessary on such occasions, therefore, to issue strong warnings. No complaints under this sub-heading, however, were received from the public.

Diseases of Animals (Waste Food) Order, 1957

This Order prohibits the feeding of unboiled waste foods to certain specified animals or to poultry in order to prevent the spread of foot-and-mouth and other diseases of animals, and plant and equipment used in the heat treatment of swill for pigs were therefore routinely inspected to ensure compliance with the terms thereof.

Only three of the six boiler units were in use at the end of the year and these were contained in premises properly licensed by the Corporation for this purpose. At the three other licensed places the stock were being fed on barley meal.

The importance of the swill being effectively protected from vermin and other livestock was always stressed but in spite of this a bad case of rat infestation was discovered which necessitated the employment of a rat exterminator. These premises are being kept under close observation.

Piggeries

Economic reasons and the expansion of industrial and housing estates are no doubt the reasons for the number of piggeries within the City being now reduced to a mere nine, with accommodation for roughly 600 animals.

Routine inspections were carried out, as usual, to ensure that the premises were being satisfactorily maintained and in compliance with the requirements of the bye-laws.

Stables

No complaints were received during 1971 regarding conditions at the few remaining stables in the City.

Routine visits were made to these premises as necessary, however, to ensure that the animals were adequately housed, that manure was being properly stored and treated to prevent fly nuisance and that regular removal was being carried out.

Offensive Trades

Eight businesses are on the register and all, with the exception of one hide factor, are carried on within the precincts of the Public Slaughterhouses. The following are the details :—

Gut Cleaners (Private)	...	...	...	...	...	1
Hide Factors (Private)	...	...	...	...	...	3
Slaughterer of Cattle (Corporation)	...	...	...	...	...	1
Tripe Cleaner (Corporation)	...	...	...	...	...	1
Blood Boiler (Corporation)	...	...	...	...	...	1
Tallow Melter (Corporation)	...	...	...	...	...	1

This is a reduction of one compared with last year, one of the hide factors now merely making collections from the premises concerned.

Routine visits were made to ascertain if the bye-laws governing the respective businesses were being complied with and that the processes were being carried out under satisfactory conditions. Considering the

age and construction of the buildings reasonable standards are being maintained and no complaints were received during the year. Reconstruction and modernisation are, however, very desirable but, as mentioned in an earlier part of the report, this is still under consideration so far as the whole of the slaughterhouse premises are concerned.

Pet Animals Act, 1951

Nine premises in the City are licensed under this Act, an increase of one since 1970. Two new premises were added while one business was closed down. From a total of 31 visits made during the year the attention of owners had to be drawn to matters such as worn floor coverings, unsuitable refuse storage and pet food storage conditions and, in one instance, overcrowding of birds in a small cage. There were five cases in all and these were readily put right on request.

When the licences came up for annual renewal it was possible to recommend approval in every case.

Pharmacy and Poisons Act, 1933

The number of registrations for the sale of Part II Poisons at the end of 1971 was, once again, very considerably reduced. After inspections to ensure that storage arrangements were satisfactory and that the requirements regarding labelling, etc. were being complied with, only 33 applications were submitted for retention in Part II of the Poisons List for the period 1st January to 31st December, 1972. This represents a reduction of 32 on the previous year's figure and is due mainly to the closure of many branch shops and the failure on the part of others to continue selling the articles for which registration is required.

Merchandise Marks Acts, 1887-1953, etc.

This legislation concerning measures for giving an indication of the country of origin in relation to certain imported goods expired at the end of November, 1971, and although it was announced by the Government that new Orders would be made these are to be under the Trades Descriptions Act which is not administered by this department. Compliance with the requirements in relations to foodstuffs was noted by the inspectorate as a matter of routine during the year and warnings given as necessary.

Fertilisers and Feeding Stuffs Act, 1926

Twelve samples (seven fertilisers and five feeding stuffs) were taken during the year for the purpose of chemical analysis and were found to conform to the guarantees in all respects.

Rag Flock and Other Filling Materials Act, 1951, etc.

The seven premises registered for the use of rag flock and other filling materials and the factory licensed for the storage of rag flock were all visited during the year and found to be satisfactory.

Six informal samples were taken as under :—

Wool Flock	...	...	3	Linta Felt	...	...	1
Sheet Wadding	...	...	1	Hog Hair	...	...	1

and all were reported to comply with the standards prescribed.

The Rag Flock and Other Filling Materials Regulations, 1971, came into operation on 3rd November, 1971, and the principal changes from previous Regulations are :—

- (1) Prescription of additional filling materials as filling materials to which the Act applies;
- (2) increase in Analyst's fees; and
- (3) prescription of additional analysts.

Port Health

The number of ships arriving at the Port from foreign countries showed a decrease of three compared with the figure for 1970. There was also a reduction in tonnage.

Coastal shipping showed an increase of fifteen arrivals compared with the 1970 figures and the tonnage was also higher. This could mainly be attributed to the greater number of oil tankers using the port.

Statistical details thereanent are as follows :—

Volume of Shipping Entering the Port

	No.	Tonnage
1. Foreign	293	204,230
2. Coastwise	375	295,487

Details of Foreign Shipping

No. of Ships	293
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Coming From

Free Ports		Infected Ports	
Direct	Indirect	Direct	Indirect
250	Nil	27	16
Number carrying Deratting Certificates		...	1
Number carrying Deratting Exemption Certificates		...	291
Number with No Certificate		...	1*

* 1 Yacht

Inspections. Detailed routine inspections were carried out on all vessels arriving at the harbour from foreign ports. Coastal shipping was also given attention as necessary. The total number of nuisances discovered was 132, abatement being secured in the majority of cases prior to the departure of the vessels. In a few instances where remedial measures were not possible, arrangements were made for the necessary works to be undertaken at the next port of call or, in the case of larger vessels, when in dry dock.

Special attention was given to crews' quarters, messrooms, galleys, pantries, provision storerooms and sanitary accommodation to determine their cleanliness, state of repair and freedom from vermin. The standards of cleanliness and repair were found to be generally good and no evidence of bugs, fleas or lice was at any time detected. Cockroach infestations, however, were found in the crews' quarters, galleys, pantries and provision storerooms of several of the larger vessels coming from ports in India and Pakistan (Bangladesh) but prompt

eradicated measures were always instituted during the vessels' stay in port which, on the whole, proved effective. Only in certain extreme cases were arrangements made to have a ship fumigated at the port of final discharge.

Provision storerooms and larders were found to be clean and well maintained and no necessity arose for the seizure of any foodstuffs, although on several occasions weevil affected flour and curry powder were, on request, voluntarily surrendered as being unfit for human consumption. The most common fault found was once again the lack of attention to the proper defrosting of refrigerators.

Deratting. All foreign ships were subjected to routine inspection for rodent infestations, four cases of a minor nature and one major infestation being discovered. Poisoning was carried out in all five instances while the vessels were in port. So far as the major infestation is concerned, however, this was only a temporary arrangement until the vessel could be fumigated at the port of final discharge. The authority for this port was therefore notified accordingly.

The provision of rat guards on mooring ropes is insisted upon while vessels are in harbour in Dundee.

Deratting Exemption Certificates were issued in respect of 14 vessels which, after inspection, were found to qualify for such.

Ships trading coastwise which came within the scope of the Prevention of Damage by Pests (Application to Shipping) Order, 1951, were visited as necessity required and found to be clean and free from vermin at all times. Hardly any such vessel now carries a Rodent Control Certificate, however, preference being given to the International Certificate to cover the possibility of voyages to foreign ports.

Water Supplies. The equipment used for taking on water was inspected regularly and always found to be clean and in good repair. In twelve cases storage tanks for drinking water were cleaned and cement washed prior to refilling. As in the previous year, well over two million gallons of water were provided for ships' use whilst in port.

During the latter part of the year the Queen Elizabeth Wharf and sheds were taken over by the British Petroleum Oil Company as a supply base for storing equipment, etc. used in the servicing of their North Sea oil rigs and the water supply on each of the ships employed for this work is tested periodically because this water is also transferred for use by the men on the rigs.

Sampling. Four samples of Indian Tea procured and submitted to the Public Analyst proved to be genuine, as also was a sample of Orange Sour Pulp used in the manufacture of marmalade.

Two samples of bone grist submitted for bacteriological examination were found to be unsatisfactory.

Various consignments of foreign shrimps and prawns were off-loaded at the port for onward transportation in refrigerated vehicles to towns south of the border. Random samples of different gradings from each consignment were sent for bacteriological examination and the consignments held in cold storage until the results were proved satis-

factory. Clearance certificates containing recommendations for proper cleaning and cooking were then issued. Each refrigerated vehicle was also carefully inspected and found to meet the required standards.

Details of foodstuffs, and quantities, which arrived from foreign ports during the year under review are as follows :—

					Tons	Cwts.	Qrs.
Fish (Frozen)	...	...	...	...	277	2	2
Orange Pulp	...	...	...	...	438	—	—
Tea	...	...	...	...	111	17	—
					826	19	2

Other statistical details covering the work at the port during the year are as undernoted :—

Table of Inspections

Number of Visits to Ships	132
Total Number of Verbal Intimations	559
Number of Ships from Infected Ports (Direct)	27
Number of Ships from Infected Ports (Indirect)	16
Number of Ships from Free Ports (Direct)	250
Number of Ships from Free Ports (Indirect)	Nil
Total Number of Ships from Foreign Ports	293
Nuisances and Defects attended to	132

Comprising :—

Forecastsles Cleaned	17
Messrooms Cleaned	16
Storerooms Cleaned	20
Choked or Defective Water Closets	15
Dirty Wash-basins	17
Discharge of Foul Water on Quay	9
Dirty Bedding (crew)	—
Choked Scuppers	13
Dirty Lockers	9
Ventilators Obstructed	7
Excessive Smoke Emission	9

In addition the following work was carried out while the vessels were in port

Freshwater Tanks Cleaned Out	12
Forecastsles Painted	13
Bathrooms or Wash Places Painted	15
Crews' Messroom Painted	11
Crews' Living Quarters Painted	11
Water Closet Apartments Painted	24
Bilges Emptied	40

And the following are the details concerning deratting activities :—

(A)

Number of Vessels Subjected to Measures of Rat Destruction	5
On Ships—No. of dead rats recovered	47
No. of rats examined bacteriologically	Nil
On Shore—No. of rats destroyed other than on ships	274
No. of rats examined bacteriologically	Nil

Species of rats recovered:—

On Ships—Black 32; Brown or Grey 15.

On Shore—Black 80; Brown or Grey 194.

(B)

No. of Vessels Fumigated by SO ₂	Nil
No. of Vessels Fumigated by HCN	Nil
No. of Dead Rats Recovered	Nil
No. of Vessels on which Poisoning was Employed	5
No. of Dead Rats Recovered	47
Deratting Certificates Issued	Nil
Deratting Exemption Certificates Issued	14

General Prosecutions

Following is a summary of the results of the 33 cases (details elsewhere in the report) sent to the Procurator Fiscal with a view to action being taken against the offenders in the Sheriff Court.

Offence	Legislation Contravened	Result of Action
Preservative in Mince outwith the permitted period	Preservatives in Food (Scotland) Regulations, 1962, Regulation 4(1)(a)	Fined £3
do.	do.	Fined £5
do.	do.	Fined £5
do.	do.	Fined £10
do.	do.	Fined £10
do.	do.	Fined £10
do.	do.	Fined £15
do.	do.	Fined £15
Excess Preservative in Sausages	do.	Fined £5
do.	do.	Fined £10
do.	do.	Fined £10
do.	do.	Fined £10
Sausages deficient in Meat Content	Sausage and Other Meat Product (Scotland) Regulations, 1967, Regulations 5(2) and 6(1)(b)	Withdrawal by Procurator Fiscal because of Expiry of Time Limit
do.	do.	Fined £5
do.	do.	Fined £5
Rum sold below strength stated on label	Food and Drugs (Scotland) Act, 1956, Sections 2(1), 3(4) and 6(1)	Found Not Guilty
Whisky sold below strength stated on label	Food and Drugs (Scotland) Act, 1956, Section 6(1)	Fined £15

Offence	Legislation Contravened	Result of Action
Sale of Frozen Roast Chicken Dinner containing adhesive surgical dressing	Food and Drugs (Scotland) Act, 1956, Sections 2(1) and 8(1)	Fined £5
Sale of Chocolate Peanuts and Raisins containing moth larva	do.	Fined £10
Sale of Wine Gums containing parts of a wasp	do.	Warning letter from Procurator Fiscal
Sale of Bacon infested with blowfly eggs	do.	Fined £10
Sale of Milk containing puparia of <i>Drosophila</i> fly	Food and Drugs (Scotland) Act, 1956, Section 2(1)	Fined £10
Sale of Morning Roll containing soda glass	do.	Fined £10
Sale of Lemonade containing phenolic substances	do.	Fined £10
Sale of Bread containing part of blade for a bread-cutting machine	do.	Fined £15
Sale of Morning Roll containing an insect	do.	Fined £15
Sale of Lemonade containing glass	do.	Fined £20
Sale of Mouldy Scotch Pie	Food and Drugs (Scotland) Act, 1956, Section 8(1)	Fined £10
Sale of Mouldy Sausage Rolls	do.	Fined £10
Sale of Meat Paste unfit for human consumption	do.	Fined £5
Sale of Mouldy Sausage Rolls	do.	Case withdrawn by Procurator Fiscal
Sale of Mouldy Sausage Rolls	do.	Fined £15
Failure to carry out specified works within shop premises	Offices, Shops and Railway Premises Act, 1963, Section 64(1)	Fined £50

