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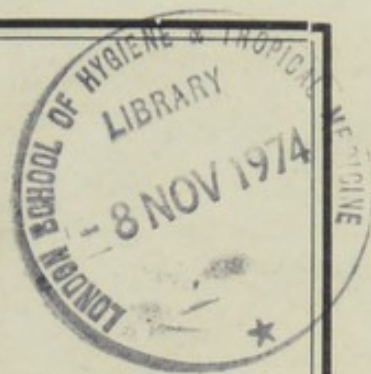
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ANNUAL REPORT


of the
Health Department

of the
City of Dundee

for the year 1972

IAN B. L. WEIR

B.Sc., M.B., Ch.B., F.F.C.M., 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 1972



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Dundee

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Index

Page

B.C.G. Vaccination	8
Births	6
Chiropody	12
Clinic Premises	11
Deaths	6
Diphtheria Immunisation	7
Domiciliary Midwifery	30
Health Visiting	11
Home Nursing	9
Illegitimate Births	6
Infant Deaths	6
Maternal Deaths	6
Measles Vaccination	7
Poliomyelitis	7
Population	5
Port Health Administration	12
Rehousing on Medical Grounds	10
Smallpox Vaccinations	7
Stillbirths	6
Tetanus Immunisation	7
Tuberculosis	8
Venereal Diseases	8
Vital Statistics	4
Welfare Foods	10
Whooping Cough Immunisation	7

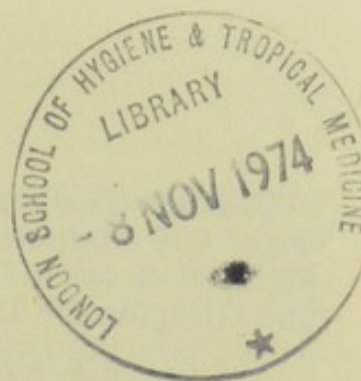
SECTIONAL REPORTS —

Child Health Services	28
Dental Services	47
Sanitary Department	51
School Health Service	38

Summary of Vital Statistics for 1972 as compared with 1971

	1971	1972
Population	182,930	181,842
Number of Deaths (corrected)	2,087	2,304
Death-rate per 1,000 population	11.4	12.5
Deaths of Infants under 1 year	43	37
Infantile Death-rate per 1,000 births	15	15
Marriage-rate per 1,000 population	8.5	8.1
Number of Births Registered (corrected)	2,903	2,498
Birth-rate per 1,000 population	15.9	13.9
Illegitimate Birth-rate per 100 births	11.4	11.3
Still-births per 1,000 births (including still-births)	9	16
Number of Deaths from Pulmonary Tuberculosis	4	3
Number of Deaths from all forms of Tuberculosis	10	8
Death-rate per 1,000 population from Pulmonary Tuberculosis	0.02	0.02
Death-rate from all forms of Tuberculosis	0.05	0.04
Death-rate from Principal Epidemic Diseases	—	0.07
Deaths from Diphtheria	—	—
Maternal Mortality per 1,000 births	—	—
Neo-Natal Mortality	10	8
Number of Deaths from Malignant Diseases	465	517
Death-rate from Malignant Diseases	2.54	2.84

Annual Report, 1972



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

LADIES AND GENTLEMEN,

I have once again great pleasure in presenting the Annual Report on the work of this Department for the year 1972. This will be the last occasion on which a report from the Medical Officer of Health will be presented to the Corporation of Dundee as arrangements are now far advanced for the Reorganisation of the Health Service entailing all the integration of the Local Authority Health Services into the Area Health Board as from 1st April, 1974.

Since 1863 there have been seven Medical Officers of Health for the City of Dundee. Many of these predecessors have held office with great distinction over lengthy periods :—

Dr Cowper	...	...	...	1863-1868
Dr Pirie	...	...	...	1868-1882
Dr Anderson	...	...	...	1882-1896
Dr Templeman	...	...	...	1896-1918
Dr (latterly Prof.) Burgess	...	...	...	1918-1951
Dr Cuthbert	...	...	...	1951-1953

My own tenure of office from 1953-1974 has seen the continuation of the Department's efforts to ensure improvement in the health of the population with considerable success as will be evidenced by comparing statistical information in reports of by-gone years with those of current times. The infant death rate, the infectious disease incidence rate, the tuberculosis incidence and death rate have all shown remarkable improvements as have the general state of health, nutrition, and housing of the populace.

During my 21 years in office I have had much valuable assistance from my many professional friends and colleagues in the Department and in related services. I have had much encouragement and support from the conveners and members of the Health Committee and the Corporation and I would wish to extend to them all my sincere thanks.

As, in 1974, we will move into a new phase of health administration, I would anticipate that the same collaboration as has existed in the past will require to be continued if the success of our efforts is to be maintained and I look forward with eager anticipation to its fulfilment.

Ensuing pages of this report outline the salient features of the health of the population for the year 1972. While no exceptional achievements fall to be recorded, throughout the statistics there is a continuation of the trends established in recent years.

Population : The population of the City as estimated by the Registrar General at the middle of 1972, was 181,842 — a decrease of 1,088 over the previous year. The natural increase of population — the increase of births over deaths — is 194.

Deaths : The number of deaths corrected for transfers during 1972 was 2,304 compared with 2,087 in 1971. The respective rates per 1,000 population were 12.5 and 11.4. The figures for Aberdeen, Edinburgh and Glasgow are 12.6, 12.9 and 13.7 respectively.

The average age at death during 1972 was 69; in 1971 it was 69. 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 91.4 per cent. In 1971 this figure was 90.7 per cent.

Eight deaths were attributed to tuberculosis this year compared to ten last year.

Deaths from respiratory conditions increased from 276 in 1971 to 308. There were 12 deaths from Influenza during the year — none in 1971. The principal of all deaths, diseases of the heart and circulation accounted for 1,132 deaths of which 643 were due to ischaemic heart disease and 282 to cerebrovascular disease.

The number of malignant deaths — 517 — shows an increase of 52 compared with the 1971 figure of 465. Cancer of the lung accounted for 137 of these (109 males and 28 females).

Deaths from unnatural causes remain high — accidents in the home 30 (35), motor vehicle accidents 19 (18) and suicides 26 (27). The 1971 figures shown in brackets.

Infant Deaths : The 1972 figure of 15 per 1,000 births is the same as in 1971. The undernoted 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)
1972	2498	37	15
1962	3745	105	28
1952	3145	97	31
1942	2770	187	68
1932	3276	236	72
1922	4227	460	109
1912	4167	662	159
1902	4536	649	143

Stillbirths : There were 40 stillbirths (corrected for transfer) compared with 27 in 1971. 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 1972.

Births : There were 2,498 births (corrected for transfer) compared with 2,903 in 1971. The 1972 birth rate per 1,000 population was 13.9, in 1971 it was 15.9.

Illegitimate Births : In 1972 there were 283 illegitimate births, representing a rate of 11.3 per 100 live births, in 1971 the rate was 11.4.

Smallpox Vaccinations : The number of primary vaccinations during 1972 decreased from 2,128 in 1971 to 558. 9 children under the age of one year were vaccinated; in 1971 the number was 18. In addition, 1,556 persons were re-vaccinated compared with 2,095 in 1971. 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	8
Diphtheria and Tetanus	156
Diphtheria, Tetanus and Whooping Cough	1467
Pertussis	—

Measles Vaccination : 1,839 children were immunised this year compared with 1,967 in 1971. Records received from all sources are as follows :—

Children born in 1972	3
Children born in 1971	839
Children born in 1970	591
Children born in 1969	214
Children born in 1968	85
Children born in 1967	73
Children born in 1966	17
Children born in 1965 and earlier	17
	<hr/> 1,839

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

Girls born in 1962	—
Girls born in 1961	4
Girls born in 1960	11
Girls born in 1959	942
Girls born in 1958	247
Girls born in 1957 and earlier	21
	<hr/> 1225

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

Children born in 1972	48
Children born in 1971	1159
Children born in 1970	202
Children born in 1969	71
Children born in 1968	18
Children born in 1967	150
Children born in 1966	5
Pre 1966	42
	<hr/> 1695

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
1972	2046	2301	4347	1179	1274	2453	1171	1219	2390
1971	2294	2540	4834	1382	1440	2822	1318	1402	2720

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			Total Venereal	Non Venereal
	Acquired	Congenital	Total	Genital	Gonococcal Ophthalmia	Total	Ven. Cond. excl. Syph. Gonorr. and Chancroid	Total Venereal	Non Venereal		
1972	8	—	8	—	495	495	1008	1511	269		
1971	6	—	6	—	389	389	953	1348	300		
1970	5	—	5	—	332	332	894	1231	268		

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 69, 45 males and 24 females. Last year's figure was 58, 44 males and 14 females.

The non-respiratory cases confirmed this year numbered 14, 7 males and 7 females. Last year's figure was 10, 4 males and 6 females. The site of disease in this year's non-respiratory cases included 1 bones and joints, 1 meningeal, 3 with superficial glands affected, 5 genito-urinary and 4 other organs.

There were 8 T.B. deaths during the year, 3 pulmonary and 5 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 1,040. 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	1	1	14	23	37	109	137	136	124	580
Female	1	1	18	27	43	118	132	73	48	460

During the year 20 cases of tuberculosis (4 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						
	1972	1971	1970	1969	1968	1967	1966
Patients under 65 years	982	846	908	848	919	749	901
Patients over 65 years	1598	1345	1326	1148	1034	1009	1097
	2580	2191	2234	1996	1953	1758	1998

1. Cases under treatment at 31st December, 1971	979
New cases reported during 1972	2580
	<u>3559</u>

Cases removed from register during the year :—

(a) Convalescent	1565
(b) Removed to hospital	722
(c) Transferred	—
(d) Died	200

Total number of cases on register at 31st December, 1972

2. Total number of nursing visits during the year	1072
	104,659

3. Details of new cases registered during the year 1972:—

(a) Nature of Treatment Required :

	Total	Age Grouping			
		0-4	5-15	16-64	65+
General Cases	454	—	—	85	369
Dressings	834	55	44	328	407
Blanket Baths	291	2	—	40	249
Enemas	193	7	5	60	121
Penicillin injections	122	4	6	73	39
Insulin injections	43	—	2	20	21
Other injections	373	7	1	153	212
Other treatment	270	20	14	56	180
	2580	95	72	815	1598

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

	Total	0-4	5-15	16-64	65+
1. Tuberculosis	10	1	—	7	2
2. Other infectious diseases	32	4	3	8	17
3. Malignant and lymphatic neoplasm	254	2	—	99	153
4. Asthma	11	1	—	6	4
5. Diabetes Mellitus	64	—	2	26	36
6. Vascular Disease	74	—	—	9	65
7. Mental and Nervous Diseases	132	—	1	65	66
8. Diseases of heart and arteries	177	—	—	24	153
9. Diseases of the veins	119	—	—	25	94
10. Upper respiratory diseases	32	2	1	23	6

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

	Total	0-4	5-15	61-64	65+
Brought forward	6/5	10	7	292	596
11. Other respiratory diseases	123	1	1	31	90
12. Constipation	163	7	4	48	104
13. Other diseases of digestive system	193	8	7	96	82
14. Diseases of urinary system and male genital organs	58	2	1	25	30
15. Diseases of breast and female genital organs	70	—	—	61	9
16. Diseases of skin and subcutaneous tissues	192	15	24	72	81
17. Diseases of bones, joints and muscles	112	—	—	32	80
18. Injuries	321	40	22	91	168
19. Senility	135	—	—	—	135
20. Other conditions	308	12	6	67	223
Total	2580	95	72	815	1598

4. Nursing Requisites issued during year :—

1 Walking Aid	1 Zimmer	12 Commodes
2 Back Rests	3 Air Rings	12 Urinals
3 Cages	13 Bed Pans	1 Wheelchair

5. Staffing:—

Average

Superintendent	1
Nurses (whole-time)	33
Nurses (part-time)	5

Nursing Equipment : as supplied by the Health Department :—

Bedpans	69	Commodes	183
Plastic Sheets	71	Air Rings	47
Fracture Boards	15	Nappie Rolls	964
Urinals	59	Wheelchairs	27
Bed Rests	51	Bed Cages	52
Poly Perch	2	Plastic Incontinence Pants	146
Pillows	14	Mattress	3
Beds	4	Bed Safety Rail	1

Welfare Foods : There was an increase in the sale of National Dried Milk and Vitamin Drops during the year. Details are as undernoted :—

	National Dried Milk	Orange Juice	Cod Liver Oil	Vitamins	Vitamin Drops
1969	7052	57,688	4586	3369	—
1970	6141	63,337	4057	3775	—
1971	6820	64,116	2791	3118	3216
1972	9539	13,973	—	2230	6350

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

New applications for priority	1126
Previous cases reviewed	428
Total cases dealt with	1554

Of the above cases 4 were awarded outright medical priority, 204 were awarded secondary priority, 256 were awarded points, 12 were not supported and 73 received no further award. 14 exchanges were supported. 990 transfer cases were submitted, 25 of which were awarded outright priority, 513 were awarded points, 324 were not supported and 128 received no further award.

Clinic Premises : During the year 1972 two new clinics were opened.

- (1) Barnhill Clinic, Nursery Road, Dundee.
- (2) Whitfield Church Hall, Haddington Crescent, Dundee.

One Clinic was closed.

- (1) Balgillo Clinic, Marlee Road, Dundee.

Health Visiting Service : In 1972 there were no retirals but seven members of staff left, one was accepted for S.S.A.F.A. and another to take a course in Bible Studies with a view to becoming a missionary.

They were replaced by seven newly graduated health visitors from the training schools in Dundee.

This constant change in staff is becoming the rule rather than the exception and, unfortunately, does not lend itself to the intimate knowledge of families that we were at one time so proud.

There are now 15 health visitors working in 10 general practitioners' practices. There are still some general practitioners waiting for a health visitor, but this will be rectified as soon as is practicable.

The specialist health visitor for Health Education arranged for the distribution of material supplied by the Scottish Health Education Unit to support their campaigns. Schools and colleges used suitable poster material and sessions on the dangers of smoking, illustrated by films, were held in several primary and secondary schools. Health visitors continued to assist in Anti-Smoking Clinic sessions throughout the year.

Mothercraft classes have continued but the numbers in our clinics have been falling as the hospital classes tend to be increasing, but we still have two health visitors who participate in the mothercraft classes in the hospital.

Liaison is continued in the Paediatric Ward and Orthopaedic Clinic in the hospital.

We continue to have nursing, medical and other students for insight into community care.

The staff of part-time nurses in school and clinics continue with their efficient service. One of our school nurses applied, and was accepted, for Health Visitor Training.

We still have eight family helpers, but the demand for their services is diminishing. They have been very helpful in visiting senior citizens in the time of crisis.

The register of geriatrics is growing rapidly. Geriatric visitors are doing an excellent job in a supportive roll and information from them to the health visitor is very beneficial.

The incidence of sickness was less than 1971. Once again we are indebted to the Health Committee for their generosity in permitting health visitors to attend refresher, study day and first line management courses.

Chiropody : At 31st December, 1972, the number of patients receiving treatment was 5,590, an increase of 1,023 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	482	270	9	3	764
Revisits	12,464	4834	433	92	17,823
	12,946	5104	442	95	18,587

Domiciliary treatments amounted to 4,260 and are included in the above total.

Port Health Administration : Foreign trade at the port of Dundee was busier than it has been for many years with 413 ships arriving from foreign ports, an increase of 120 over the previous year's total. All of these ships were visited by the Port Sanitary Inspector and the Report of the Chief Sanitary Inspector gives details of these inspections.

In addition, 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.

48 such boardings were carried out by the Port Medical Officer during the year, 17 more than in the previous year. The vessels had arrived from ports in the following countries :—

EUROPE : U.S.S.R. — 14; Poland — 6; Spain — 5; East Germany — 1;
West Germany — 1; Greece — 1; Portugal — 1; Sweden — 1.

ASIA : Bangladesh — 10; India — 3; Thailand — 2.

AFRICA : Algeria — 1.

SOUTH AMERICA : Argentina — 1; Venezuela — 1.

Greece is within the "excepted area" but the ship in question had called at a North African port during the voyage.

During the year, 7 people were admitted from ships to King's Cross Hospital as suspected cases of infectious disease.

Six were of Indian nationality : a 51-year old seaman with pulmonary tuberculosis; a 29-year old with lymphogranuloma venereum; a 24-year old officer and the year old child of the Master of the same ship with chickenpox; a four year old child of a Master with pyrexia and skin lesions, subsequently diagnosed as a papular urticaria; and 2 seamen from a cruise liner and cargo liner respectively who were reported to have pyrexial illnesses but who had no demonstrable disease.

The seventh case was a West Indian with influenza and tracheitis who was taken off a ship bound from Rotterdam to Perth.

All seven had returned to their ship or country of origin within a month.

No cases of quarantinable disease were seen during the year.

I am, Ladies and Gentlemen,

Your obedient servant,

IAN B. L. WEIR,
B.Sc., M.B., Ch.B., F.F.C.M., D.P.H., D.P.A.
Medical Officer of Health.

List of Tables and Charts

1. Causes of Death (Corrected for Transfers) at Different Age Periods during 1972.
2. Death-rates at Various Age Periods (from all causes) each year 1963-72.
3. Death-rate (from all causes) each month during the years 1963-72.
4. Death and Death-rates from Various Groups of Causes each year since 1963 (all ages).
5. Certified causes of death at various ages under 1 year during 1972.
6. Infant Mortality Rates from Various Groups of Causes each year, 1963-72.
7. Infant Mortality Rates from all Causes at Various Age Periods 1963-72.
8. Number of Illegitimate Births, Number of Deaths (under 1 year) of Illegitimate Infants, and Death-rate per 1,000 Illegitimate Births since 1963.
9. Number of Stillbirths and rate per 1,000 Births, 1963-72.
10. Annual Death-rate per 100,000 population and Case Mortality, per cent, from Measles and Whooping Cough each year since 1963.
11. Maternal Mortality Rates—Number of Deaths per 1,000 Registered Births, plus Stillbirths, 1963-72.
12. Death-rates per 100,000 each year since 1963 from Respiratory Diseases (including Bronchitis, Pneumonia (all forms), Pleurisy, Laryngitis, etc.).
13. Deaths in which Influenza was given as a cause of death each month, January 1963 to December 1972.
14. Deaths in which Influenza appeared as a cause in Death Certificate, 1963-72, classified in Age Periods.
15. Infectious Diseases—Number of cases of each Disease Notified and Accepted in Dundee during the year 1972. Also number removed and number not removed to Hospital.
16. Monthly Notifications and Intimations of Infectious Diseases, Dundee, 1972.
17. Tuberculosis—Notifications and Deaths, with corresponding rates per 1,000 population at various Age Periods each year since 1963.

Return showing Causes of Death (corrected for transfers) at different Age Periods during 1972

Cause of Death.	ALL AGES Total	Males	Females	Under 4 wks. to 1 yr.	1- 5-	10- 15-	25- 35-	45- 55-	65- 75-	85- and over
Enteritis and other diarrhoeal diseases	4	1	3	1	—	—	—	1	—	1
Tuberculosis of Respiratory System	3	2	1	—	—	1	—	—	2	—
Other tuberculosis, including late effects	5	2	3	—	—	—	—	2	2	1
Whooping Cough	—	—	—	—	—	—	—	—	—	—
Meningococcal Infections	2	2	—	—	1	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—	—
Measles	1	—	—	—	—	—	—	—	1	—
Rhyphitis and its sequelae	2	2	—	1	—	—	—	1	—	—
Other infective and parasitic diseases	77	38	39	—	—	1	6	17	29	5
Malignant neoplasms of stomach	—	—	—	—	—	—	—	—	—	—
Malignant neoplasms of trachea, bronchus and lung	137	109	28	—	—	—	3	16	67	28
Malignant neoplasm of breast	42	—	42	—	—	—	5	6	12	7
Malignant neoplasm of cervix uteri	6	—	6	—	—	—	—	1	2	1
Malignant neoplasms of lymphatic and haematopoietic tissues	26	11	15	1	—	2	1	2	4	6
Other malignant neoplasms	229	109	120	—	—	1	1	24	35	20
Benign and unspecified neoplasms	6	3	3	—	—	2	2	2	2	—
Diabetes mellitus	19	7	12	—	—	—	—	7	7	1
Avitaminoses and other nutritional deficiencies	1	—	1	—	—	—	—	—	—	1
Anaemias	6	1	5	—	—	—	—	—	1	3
Other general diseases	5	2	3	1	—	—	—	2	—	1
Meningitis	3	—	3	—	1	—	—	—	—	—
Other disease of nervous system	41	10	31	—	—	1	1	1	12	8
Active rheumatic fever	1	1	—	—	—	—	—	2	7	5
Chronic rheumatic heart disease	23	4	19	—	—	—	—	2	7	11
Hypertensive disease	30	16	14	—	—	1	13	44	211	167
Iscchaemic heart disease	643	352	291	—	—	1	1	34	14	73
Other forms of heart disease	61	20	41	—	—	—	1	25	33	17
Cerebrovascular diseases	282	115	167	—	—	—	15	33	77	110
Other circulatory diseases	96	34	62	—	—	—	1	12	31	14
Influenza	12	4	8	—	—	—	1	1	2	4
Pneumonia	170	63	107	3	1	2	1	10	40	71
Bronchitis, emphysema and asthma	120	88	32	—	—	3	7	23	41	35
Other respiratory diseases	18	10	8	1	—	—	5	8	11	5
Peptic ulcer	14	7	7	—	—	—	1	2	4	6
Appendicitis	1	1	—	—	—	—	—	—	1	—
Intestinal obstruction and hernia	11	5	6	—	1	—	—	2	1	5
Cirrhosis of liver	9	4	5	—	—	—	1	2	3	3
Other digestive diseases	17	8	9	—	—	1	—	3	4	4
Nephritis and nephrosis	14	8	6	—	—	—	—	1	2	6
Hyperplasia of prostate	2	2	—	—	—	—	—	—	1	1
Infections of kidney	14	7	7	—	—	1	2	1	2	4
Other disease of genito-urinary system	18	9	9	—	1	—	—	1	3	11
Abortion	—	—	—	—	—	—	—	—	—	—
Other complications of pregnancy, childbirth and puerperium	—	—	—	—	—	—	—	—	—	—
Diseases of skin, musculoskeletal system, etc.	6	2	4	—	1	—	—	1	2	2
Congenital anomalies of nervous system	2	1	1	2	—	—	—	—	—	—
Congenital anomalies of circulatory system	7	2	5	4	1	—	1	—	—	—
Other congenital anomalies	2	1	1	—	—	—	—	—	—	—
Birth injuries, difficult labour and other anoxic and hypoxic conditions	11	9	2	9	2	—	—	—	—	—
Other causes of perinatal mortality	1	1	—	1	—	—	—	—	—	—
Senility without mention of psychosis	2	—	2	—	—	—	—	—	—	—
Ill-defined and unknown causes	4	1	3	—	—	—	—	—	—	1
Motor vehicle accidents	19	10	9	—	1	3	2	2	2	4
Other road vehicle accidents	—	—	—	—	—	—	—	—	—	—
Accidents in the home	30	14	16	—	—	1	—	3	7	7
Other violence	23	12	11	1	2	3	2	2	4	3
Suicide and self-inflicted injury	26	15	11	—	—	—	7	4	6	4
	2304	1126	1178	19	18	10	7	2	14	16
					51	150	363	693	676	285

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THE DIVISION OF THE PHYSICAL SCIENCES

THE DEPARTMENT OF CHEMISTRY

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18. Tuberculosis—Notifications and Deaths with corresponding rates per 1,000 population for each year since 1963.
19. Pulmonary Tuberculosis Notifications and Deaths with corresponding rates per 1,000 population for each sex each year since 1963.
20. Pulmonary Tuberculosis—Deaths in Institutions each year since 1963.
21. Malignant Diseases—Number of Deaths and Death-rates per 10,000 population each year since 1963.
22. Age and Sex Distribution of Deaths from Malignant Diseases during 1972 showing parts of the body affected.
23. Number of Births per 1,000 population, Illegitimate Births per 100 Registered Births and Marriages per 1,000 population, each year since 1963.
24. Factories Acts, 1961.

TABLE II

Death-rates at Various Age Periods (from all causes each year, 1963-72)

Age Periods	1963		1964		1965		1966		1967		1968		1969		1970		1971		1972	
	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	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	2304	12.7
0-5	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	54	3.9
5-15	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	16	0.5
15-25	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	16	0.6
25-35	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	51	2.4
35-45	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	150	7.1
45-55	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	363	16.6
55-65	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	693	33.6
65 plus	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	961	41.2

TABLE III**Death-rate (from all causes) each month during the years 1963-72**

Month	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
January	16.9	13.4	15.0	15.6	11.5	19.8	15.6	17.7	12.0	16.2
February	14.7	12.7	13.9	17.5	19.4	14.8	13.5	13.3	11.0	17.0
March	15.6	13.1	13.3	16.7	11.3	11.5	14.4	14.7	13.2	13.7
April	15.4	12.5	13.2	15.1	13.6	11.6	12.9	12.0	11.4	12.7
May	15.0	12.2	12.9	14.5	11.1	11.9	12.1	8.2	12.3	10.8
June	14.1	12.2	12.3	14.0	10.7	10.2	11.2	10.2	11.0	12.4
July	13.8	12.3	12.1	13.4	11.2	10.3	9.3	11.3	8.7	10.1
August	13.2	12.1	11.8	13.2	8.7	8.9	9.1	10.5	12.0	11.2
September	12.8	12.0	11.7	12.8	9.8	11.3	13.0	10.5	11.3	12.0
October	12.7	11.9	11.5	12.6	10.9	11.6	10.5	9.2	9.0	11.9
November	12.5	12.0	11.5	12.6	12.5	11.9	10.0	11.6	12.9	11.5
December	12.7	12.1	11.7	12.7	13.7	11.9	16.7	11.8	12.3	12.0

TABLE IV

Deaths and Death-rates from Various Groups of Causes Each Year since 1963 (all ages)

Disease Group	1963		1964		1965		1966		1967		1968		1969		1970		1971		1972	
	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.	No. of Deaths	Rate per 1,000 Pop.
Pop., 184,119	Pop., 185,228	Pop., 185,296	Pop., 183,744	Pop., 182,284	Pop., 181,950	Pop., 181,508	Pop., 182,930	Pop., 181,842												
Congenital	55	.30	60	.32	55	.30	47	.27	44	.24	44	.24	47	.26	34	.19	35	.19	23	.12
Digestive	70	.38	75	.40	62	.34	77	.43	64	.35	61	.33	65	.35	44	.25	59	.32	52	.29
Respiratory	258	1.40	192	1.04	237	1.28	272	1.49	185	1.01	236	1.29	250	1.38	288	1.59	276	1.51	308	1.75
Infective	21	.12	13	.07	12	.07	23	.13	14	.08	30	.16	20	.11	42	.24	14	.08	29	.16
Circulatory	816	4.43	822	4.44	783	4.23	869	4.63	764	4.19	1089	5.97	1095	6.02	1041	5.70	1032	5.64	1136	5.68
Genito-urinary	54	.29	44	.24	34	.19	39	.22	31	.17	41	.23	44	.24	25	.14	31	.17	48	.26
Malignant	506	2.75	472	2.55	515	2.78	497	2.72	469	2.58	485	2.66	513	2.82	467	2.58	465	2.54	517	2.84
Nervous	371	2.02	402	2.17	330	1.79	351	1.92	312	1.71	43	.24	39	.21	41	.23	27	.15	44	.24
Other Causes	181	.98	142	.77	152	.82	181	.99	181	.99	191	1.05	171	.94	160	.88	148	.81	147	.81
	2,332	12.67	2,222	12.0	2,180	11.8	2,356	12.8	2,064	11.32	2,220	12.17	2,244	12.33	2,142	11.80	2,087	11.41	2,304	12.7

TABLE V

Certified Causes of Death at Various Ages Under 1 Year during 1972

Cause of Death	Under 1		WEEKS 2/3		Total		Under 2		MONTHS 3/6 6/9			9/12		Total
	1	1/2	2/3	3/4	Total		2		3/6	6/9		9/12		
Enteric Fever	—	—	—	—	—		—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—		—	—	—	—	—	—	—	—
Smallpox	—	—	—	—	—		—	—	—	—	—	—	—	—
Measles	—	—	—	—	—		—	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—		—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—		—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—		—	—	—	—	—	—	—	—
Meningococcal Infections	—	—	—	—	—		—	—	—	—	—	—	—	—
Other General Diseases	—	—	—	—	—		—	—	1	—	—	—	—	1
Meningitis	—	—	—	—	—		—	—	—	—	—	—	—	—
Tuberculosis—														
Lung	—	—	—	—	—		—	—	—	—	—	—	—	—
General	—	—	—	—	—		—	—	—	—	—	—	—	—
Abdominal	—	—	—	—	—		—	—	—	—	—	—	—	—
Brain	—	—	—	—	—		—	—	—	—	—	—	—	—
Other forms	—	—	—	—	—		—	—	—	—	—	—	—	—
Influenza	—	—	—	—	—		—	—	—	—	—	—	—	—
Other Infectious and Parasitic Diseases	1	—	—	—	1		—	—	—	—	—	—	—	1
Pneumonia	—	—	—	—	—		—	—	2	1	—	—	—	3
Bronchitis	—	—	—	—	—		—	—	—	—	—	—	—	—
Laryngitis	—	—	—	—	—		—	—	—	—	—	—	—	—
Other Diseases of Respiratory System	—	—	—	—	—		—	—	1	—	—	—	—	1
Malignant Neoplasms of Lymphatic and Haematopoietic Tissue	—	—	—	—	—		—	1	—	—	—	—	—	1
Benign and Unspecified Neoplasms	—	—	—	—	—		—	—	—	—	—	—	—	—
Other Diseases of Nervous System	—	—	—	—	—		—	—	—	—	—	—	—	—
Cerebro Vascular Disease	—	—	—	—	—		—	—	—	—	—	—	—	—
Enteritis and Other Diarrhoeal Diseases	—	1	—	—	1		—	1	—	—	—	—	—	2
Intestinal Obstruction and Hernia	—	—	—	—	—		—	—	—	—	—	—	—	—
Other Digestive Diseases	—	—	—	—	—		—	—	—	—	—	—	—	—
Congenital Anomalies of Nervous System	—	2	—	—	2		—	—	—	—	—	—	—	2
Congenital Anomalies of Circulatory System	2	1	1	—	4		—	—	1	—	—	—	—	5
Other Congenital Anomalies	—	—	—	—	—		—	—	—	1	—	—	—	1
Birth Injury, Difficult Labour and other Anoxic and Hypoxic Conditions	9	—	—	—	9		2	—	—	—	—	—	—	11
Other Causes of Perinatal Mortality	—	1	—	—	1		—	—	—	—	—	—	—	1
Motor Vehicle Accidents	—	—	—	—	—		—	—	—	—	—	—	—	—
Accidents in the Home	—	—	—	—	—		—	4	2	—	—	—	—	6
Other violence	1	—	—	—	1		—	—	1	—	—	—	—	2
Ill-defined and Unknown Causes	—	—	—	—	—		—	—	—	—	—	—	—	—
TOTALS	13	5	1	—	19		2	6	8	2	—	—	—	37

TABLE VI**Infant Mortality Rates from Various Groups of Causes Each Year 1963-72**

Year	Congenital	Digestive	Respiratory	Infectious Disease	All Other Causes	Rate per 1,000
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
1972	8.0	—	1.6	1.2	4.0	14.8

TABLE VII**Infant Mortality Rates from All Causes at Various Age Period 1963-72**

Year	Births	Death Rates			
		Under 1 Week	Under 1 Month	Under 3 Months	Under 1 Year
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
1972	2,498	8	14	17	19

TABLE VIII**Number of Illegitimate Births, Number of Deaths (under 1 year) of Illegitimate Infants, and Death-rate per 1,000 Illegitimate Births, since 1963**

Year	Illegitimate Births	Deaths of Illeg. Infants	Rate per 1,000 Illeg. Births
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
1972	283	5	18

TABLE IX

Table showing Number of Stillbirths and Rate per 1,000 Births 1963-72

Year	No. of Stillbirths	Total of Live Births and Stillbirths	Rate per 1,000 total Births (Live & Still)
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
1972	40	2,538	15.79

TABLE X

Annual Death-rate per 100,000 population and Case Mortality, per cent, from Measles and Whooping Cough Each Year since 1963

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
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	—	—	—
1972	326	—	—	—	4	—	—	—

TABLE XI

Maternal Mortality Rates — Number of Deaths per 1,000 Registered Births plus Stillbirths 1963-72

1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
.78	—	26	.59	.30	.30	.30	—	—	—

TABLE XV
INFECTIOUS DISEASES — Number of Cases of Each Disease Notified and Accepted in Dundee
During the Year 1972
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	—	—	—	—	—	—	—	—	—	—
Chickenpox	F	4	1	1	1	—	1	—	—	4	—
Cholera	M	99	7	90	1	1	—	—	—	3	—
Continued Fever	F	102	13	87	—	—	—	—	—	5	94
Diphtheria	M	—	—	—	—	—	—	—	—	4	98
Dysentery	F	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica	M	159	106	21	4	9	1	2	1	63	96
Erysipelas	F	128	9	63	17	19	3	8	—	48	80
Food Poisoning	M	—	—	—	—	—	—	—	—	—	—
Jaundice, Infective *	F	—	—	—	—	—	—	—	—	—	—
Leprosy	M	72	8	34	13	7	5	4	1	19	53
Malaria	F	—	—	—	—	—	—	—	—	21	60
Measles	M	—	—	—	—	—	—	—	—	—	—
Ophthalmia Neonatorum	M	110	5	44	60	—	—	—	—	9	101
Plague	F	93	3	53	37	—	—	—	—	12	81
Pneumonia, Acute Influenzal	M	—	—	—	—	—	—	—	—	—	—
Pneumonia, Acute Primary	F	2	—	—	—	—	—	—	—	—	—
Pneumonia (not otherwise notifiable)	M	148	9	17	5	1	3	19	77	133	15
Poliomyelitis, Acute (Paralytic)	M	164	6	11	7	3	2	6	27	102	15
Poliomyelitis, Acute (Non-Paralytic)	F	—	—	—	—	—	—	—	—	—	—
Puerperal Fever/Pyrexia	M	—	—	—	—	—	—	—	—	—	—
Rubella	F	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	M	5	—	—	—	—	—	—	—	—	—
Smallpox	F	47	1	46	2	2	1	—	—	5	—
Typhoid Fever	M	53	3	50	—	—	—	—	—	1	46
Para-Typhoid A	F	26	1	5	19	1	—	—	—	2	51
Para-Typhoid B	F	23	2	18	2	1	—	—	—	1	25
Typhus Fever	M	—	—	—	—	—	—	—	—	—	—
Whooping Cough	F	—	—	—	—	—	—	—	—	—	—
TOTAL	M	717	31	191	292	28	15	33	105	257	460
	F	712	19	160	254	39	24	17	142	274	438

* All refer to Viral Infectious Hepatitis

1. The first part of the paper is devoted to a general discussion of the problem.

2. In the second part, we shall consider the case of a single particle.

3. The third part is devoted to the case of a system of particles.

4. In the fourth part, we shall consider the case of a continuous medium.

5. The fifth part is devoted to the case of a system of continuous media.

6. In the sixth part, we shall consider the case of a system of particles and continuous media.

7. The seventh part is devoted to the case of a system of particles and continuous media.

8. In the eighth part, we shall consider the case of a system of particles and continuous media.

9. The ninth part is devoted to the case of a system of particles and continuous media.

10. In the tenth part, we shall consider the case of a system of particles and continuous media.

11. The eleventh part is devoted to the case of a system of particles and continuous media.

12. In the twelfth part, we shall consider the case of a system of particles and continuous media.

13. The thirteenth part is devoted to the case of a system of particles and continuous media.

14. In the fourteenth part, we shall consider the case of a system of particles and continuous media.

15. The fifteenth part is devoted to the case of a system of particles and continuous media.

16. In the sixteenth part, we shall consider the case of a system of particles and continuous media.

17. The seventeenth part is devoted to the case of a system of particles and continuous media.

18. In the eighteenth part, we shall consider the case of a system of particles and continuous media.

19. The nineteenth part is devoted to the case of a system of particles and continuous media.

20. In the twentieth part, we shall consider the case of a system of particles and continuous media.

TABLE XII

Death-rate per 1,000 Each Year since 1963 from the Respiratory Diseases including Bronchitis, Pneumonia (all forms), Pleurisy, Laryngitis, etc.

Year	Total Deaths	Death Rate per 100,000
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
1972	308	169.4

TABLE XIII

Deaths in which Influenza was given as a Cause of Death Each Month, January 1963 to December 1972

Months	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
January	1	0	0	3	0	11	1	19	0	7
February	1	0	0	9	0	4	0	0	0	4
March	4	0	1	5	0	1	3	0	0	0
April	1	0	0	0	0	0	0	2	0	0
May	0	0	0	0	0	0	0	1	0	0
June	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	1
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	0	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	3	0	0	0
	7	0	1	17	0	16	7	22	0	12

TABLE XIV

Deaths in which Influenza appeared as a Cause in Death Certificate, 1963-72 Classified in Age Periods

Age Periods	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Under 1 year	2	0	0	1	0	0	0	0	0	0
1 - 5 years	0	0	0	1	0	0	0	0	0	1
5 - 15 years	0	0	0	1	0	0	0	0	0	1
15 - 25 years	0	0	1	0	0	0	1	0	0	0
25 - 45 years	0	0	0	0	0	0	0	2	0	0
45 - 65 years	2	0	0	1	0	1	2	4	0	2
65 and upwards	3	0	0	13	0	15	4	16	0	8
	7	0	1	17	0	16	7	22	0	12

TABLE XVI

Monthly Notifications and Intimations of Infectious Diseases, Dundee, 1972

Disease	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Accepted Total
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	3	—	—	—	1	—	—	—	1	1	—	—	6	7
Chickenpox	18	16	4	8	14	5	—	—	20	41	24	47	197	201
Continued Fever (undulant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	3	4	9	7	3	13	34	29	17	71	56	64	310	287
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	3	5	—	3	—	—	—	1	1	3	1	17	17
Food Poisoning	1	3	1	1	—	30	36	6	—	—	2	—	80	80
Leprosy	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	—	—	—	—	—	—	—	—	—	—	1	—	1	1
Measles (Morbilli)	6	3	10	2	3	4	1	13	16	23	34	113	228	203
Measles (Rubella)	7	14	17	10	10	11	—	—	2	7	11	9	98	100
Ophthalmia Neonatorum	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia Acute Influenzal	9	3	1	—	—	—	—	—	—	—	—	1	14	7
Pneumonia Acute Primary	64	42	25	19	12	6	12	9	7	15	15	31	257	312
Poliomyelitis Acute (Paralytic)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever/Pyrexia	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Scarlet Fever	2	6	8	4	6	—	2	1	—	10	4	10	53	49
Paratyphoid B	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Viral Infectious Hepatitis	17	10	9	13	15	6	10	16	20	15	18	17	166	153
Whooping Cough	1	2	1	—	—	—	—	—	—	—	—	—	4	5
	130	103	89	63	67	45	59	68	84	184	165	293	1350	1429

TABLE XVII

TUBERCULOSIS — Notifications and Deaths with corresponding rates per 1,000 population at Various Age Periods
Each Year since 1963

PULMONARY TUBERCULOSIS													NON-PULMONARY TUBERCULOSIS																						
0-5			5-15			15-25			25-45			45-65			65 & over			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		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			
1963 Notifications	6	.35	5	.16	24	.99	41	.88	28	.63	19	.95	1	.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Deaths	—	—	—	—	—	—	2	.04	4	.09	6	.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1964 Notifications	4	.23	13	.42	10	.41	30	.64	22	.49	12	.59	—	—	—	—	2	.06	2	.08	8	.17	3	.07	5	.25	—	—	—	—	—	—			
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	—	—	—	—	2	.06	6	.25	17	.36	4	.09	2	.10	—	—	—	—	—	—			
Deaths	—	—	—	—	—	—	1	.02	2	.04	1	.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1967 Notifications	1	.06	3	.09	10	.41	17	.36	21	.47	12	.60	—	—	—	—	1	.03	2	.08	7	.15	3	.07	3	.15	—	—	—	—	—	—			
Deaths	—	—	—	—	—	—	1	.02	1	.02	4	.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1968 Notifications	1	.06	7	.22	13	.48	26	.61	30	.70	13	.60	—	—	—	—	1	.03	3	.11	16	.38	5	.12	3	.14	—	—	—	—	—	—			
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	1	.06	1	.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Deaths	—	—	—	—	—	—	—	—	1	.02	3	.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1972 Notifications	1	.07	2	.07	5	.18	8	.19	34	.80	19	.82	—	—	—	—	1	.03	1	.04	8	.19	2	.05	2	.09	—	—	—	—	—	—			
Deaths	—	—	—	—	—	—	1	.02	2	.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

TABLE XVIII

TUBERCULOSIS — Notifications and Deaths with corresponding rates per 1,000 population for Each Year since 1963

	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					
1963	18	.10	141	.76	12	.07	—	—	12	.07
1964	20	.11	111	.60	8	.04	3	.02	11	.06
1965	27	.15	119	.65	5	.02	1	.01	6	.03
1966	31	.17	111	.60	4	.02	2	.01	6	.03
1967	16	.08	80	.43	6	.03	2	.01	8	.04
1968	28	.15	118	.64	5	.02	1	.01	6	.03
1969	22	.12	135	.74	2	.01	2	.01	4	.02
1970	14	.08	78	.43	4	.02	4	.02	8	.04
1971	10	.05	68	.37	4	.02	6	.03	10	.05
1972	14	.08	83	.46	3	.02	5	.03	8	.04

TABLE XXII
Age and Sex Distribution of Deaths from Malignant Diseases during 1972 showing parts of the Body affected

[illegible]

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TABLE XIX

PULMONARY TUBERCULOSIS — Notifications and Deaths with corresponding rates per 1,000 population for Each Sex Each Year since 1963

Year	Notifications				Deaths			
	Males		Females		Males		Females	
	No.	per 1000	No.	per 1000	No.	per 1000	No.	per 1000
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	—	—
1972	45	.52	24	.25	2	.02	1	.01

TABLE XX

PULMONARY TUBERCULOSIS — Deaths in Institutions Each Year since 1963

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Total Deaths from Pul. Tuberculosis	12	8	5	4	6	5	2	4	4	3
No. of Deaths from Pul. Tuberculosis in Institutions	8	6	4	2	4	4	2	3	4	3
Percentage of Total Deaths from Pul. Tuberculosis dying in Institutions	66.6	75.0	80.0	50.0	66.6	80.0	100.0	75.0	100.0	100.0

TABLE XXI

MALIGNANT DISEASES — Number of Deaths and Death-rates per 10,000 population Each Year since 1963

Year	Males	Females	Total	Rates
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
1972	267	250	517	28.43

TABLE XXIII

Number of Births per 1,000 population, Illegitimate Births per 100 Registered Births, and Marriages per 1,000 population Each Year since 1963

Year	Birth rate	Illegitimate rate	Marriage rate
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
1972	13.9	11.3	8.1

TABLE XXIV**FACTORIES ACTS, 1961**

**Report of the Medical Officer of Health in respect of the Year 1972
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	12	5	—	—
(ii) Factories not included in (1) in which Section (7) is enforced by the Local Authority	662	726	—	—
(iii) Other premises in which Section (7) is enforced by the Local Authority (including outworkers' premises)	40	54	—	—
Total	714	785	—	—

(2) CASES in which defects were found.

Particulars	Number of cases in which defects were found				
	(2) Found	(3) Remedied	(4) Referred to H.M. Inspector	(5) Referred by H.M. Inspector	(6) No. of cases in which prosecutions were instituted
(1)					
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	52	48	—	6	—
(c) Not separate for sexes	—	—	—	—	—
Other offences against the Act (not including offences relating to outwork)	4	4	—	—	—
Total	56	52	—	6	—

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 : 2,498 (corrected) live births were registered in Dundee during the year (1,308 males and 1,190 females). This represents a live birth rate of 13.9 per 1,000 of the population.

283 (corrected) illegitimate live births (152 males and 131 females) were registered in the City during 1972 which is equivalent to an illegitimate rate of 11.3% of all live births.

The "corrected" stillbirth figure was 40 (18 males and 22 females). The stillbirth rate for the year was 16 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
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
1972	13.9	15.1	11.3	8.5	16	13

Notification of Births

	Premature	Mature	Total
Live Births	170 (196)	2358 (2696)	2528 (2892)
Stillbirths	27 (17)	13 (10)	40 (27)
	<u>197 (213)</u>	<u>2371 (2706)</u>	<u>2568 (2919)</u>

7.7% of all births were notified as premature compared with 7.3% in 1971. Figures in brackets refer to 1971.

Classification of Notified Births According to Place of Confinement

(Live Births and Stillborn)

Home					
	1968	1969	1970	1971	1972
Doctor and/or Midwife	104	78	69	51	34
Unattended	—	—	—	—	—
	—	—	—	—	—
	104 (2.4%)	78 (1.9%)	69 (2.4%)	51 (1.8%)	34 (1.3%)
	—	—	—	—	—
Institution					
Royal Infirmary	2,113	2,037	1,476	1,413	1,181
Maryfield Hospital	1,941	1,895	1,383	1,455	1,352
King's Cross Hospital	—	—	—	—	—
Clement Park	88	57	1	—	—
Other Nursing Homes	17	8	1	—	—
	—	—	—	—	—
	4,159 (97.6%)	3,997 (98.1%)	2,861 (97.6%)	2,868 (98.2%)	2,533 (98.7%)
	—	—	—	—	—
	4,263 (100%)	4,075 (100%)	2,930 (100%)	2,919 (100%)	2,567 (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.

Domiciliary Midwifery Service : During the year 1972, 1,236 women were attended by domiciliary midwives (this figure includes 1,206 early hospital discharges), and of these 22 were delivered at home.

Month of pregnancy at time of booking									Emergency Cases	Total
1	2	3	4	5	6	7	8	9		
—	0	6	4	8	2	2	—	—	—	22

Bookings by Trimesters for Domiciliary Midwifery Services

	1st Trimester	2nd Trimester	3rd Trimester	Total
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
1972	6 (27.3%)	14 (63.6%)	2 (9.1%)	22

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 332 women attended for this purpose during the year (20 for home confinement and 312 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 15 women received entonox and 9 received pethedine.

Visits paid by Midwives : 839 ante-natal (including intra-natal) visits and 9,154 post-natal visits were paid by midwives during the year. Details, and comparative figures, are as follows :—

	1968	1969	1970	1971	1972
Ante-natal (including intra-natal visits) ...	2,080	1,453	1,328	1,263	839
No. of births attended ...	86	66	53	36	22
Post-natal visits ...	6,250	6,411	8,841	8,425	9,154

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 1972 and comparative over the preceding four years.

	1968	1969	1970	1971	1972
In ante-natal period	21	13	19	2	2
During Labour	4	5	3	2	3
In puerperium—					
For mother	4	8	14	10	5
For child	1	2	5	1	3
	<u>30</u>	<u>28</u>	<u>41</u>	<u>15</u>	<u>13</u>

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, 97 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 one maternity home in the area during the year.

As is the usual practice, three 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 30 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 8 layettes were issued.

Stillbirths: As already stated, the stillbirth rate was 16 per 1,000 births. 40 infants (18 males and 22 females) were registered as still-born and 27 (68%) were premature. During 1972, 40 (100%) stillbirths occurred in institutions.

Comparison of Dundee Stillbirth Rates with other Stillbirth Rates in Scotland

		(Rates per 1,000 Births)				
		1968	1969	1970	1971	1972
Scotland	.....	15	14	14	13	13
Glasgow	.....	17	16	17	15	15
Edinburgh	.....	15	11	12	12	10
Aberdeen	.....	10	11	12	13	11
Dundee	.....	11	9	12	9	16

Causes of Pre-Natal Death

	Males — 17	Females — 23	Total — 40	
1. Causes in Mother				Total
Accidental and other ante-partum haemorrhages	2	
Toxaemia	—	
Abnormalities of placenta (insufficiency, infarction, etc.)			7	
Other cases	1	
			—	10
2. Difficulties in Labour				
Cord abnormality	—	
			—	
				—
			Carried forward	10

								Brought forward	10
3.	Foetal Anomalies and Deformities								
	Anencephaly	...	...	...	...	...	...	8	
	Hydrocephalus	...	...	...	...	...	...	4	
	Exomphalus	...	...	...	...	...	...	2	
								—	14
4.	Ill-Defined or Unknown Cause								
	Asphyxia	...	...	...	...	...	...	14	
	Unknown cause	...	...	...	...	...	...	2	
								—	16
									40

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	.....	.....	.....	.....	1,181	18
	Maryfield Hospital	.....	.....	.....	.....	1,352	22
	Nursing Homes	.....	.....	.....	.....	—	—
	Home	.....	.....	.....	.....	34	—
						—	—
						2,567	40

Social Class

	I. & II.	III.	IV. & V.	Total
No. of Stillbirths	3	17	20	40
Percentage of Deaths in each Social Class	7.5	42.5	50	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	3	3+	—	—	—	—	—	—	5	—	—
Over 2lb. 3oz. up to and including 3lb. 4oz. ...	20	2	3	1	—	—	—	—	5	—	—
Over 3lb. 4oz. up to and including 4lb. 6oz. ...	40	—	—	—	—	—	—	—	9	—	—
Over 4lb. 6oz. up to and including 4lb. 15oz. ...	38	—	1	—	—	—	—	—	3	—	—
Over 4lb. 15oz. up to and including 5lb. 8oz. ...	69	—	—	—	—	—	—	—	5	—	—
	170	5	5	1	—	—	—	—	27	—	—

+ includes 1 child born before arrival

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
Enteritis and Other Diarrhoeal Disease ...	—	—	—	—	—	1	—	—	1
Other Infective and Parasitic Diseases ...	—	—	—	—	1	—	—	—	1
Congenital Anomalies of Nervous System	—	—	—	—	—	1	1	—	2
Congenital Anomalies of Circulatory System	—	—	1	1	—	1	—	1	4
Birth Injury, Difficult Labour, and other Anoxic and Hypoxic Conditions ...	2	3	1	1	1	1	—	—	9
Other causes of Perinatal Mortality ...	1	—	—	—	—	—	—	—	1
Other Violence ...	1	—	—	—	—	—	—	—	1
	4	3	2	2	2	4	1	1	19

**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
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
1972	19	12	25	15	15	10	13	10	15	8

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
Enteritis and Other Diarrhoeal Diseases	1	—	—	—	—	1
Malignant Neoplasm of Lymphatic and Haematopoietic Tissue ...	—	1	—	—	—	1
Other General Diseases	—	—	1	—	—	1
Pneumonia	—	—	2	1	—	3
Other Respiratory Diseases	—	—	1	—	—	1
Congenital Anomalies of Circulatory System	—	—	1	—	—	1
Other Congenital Anomalies	—	—	—	1	—	1
Birth Injury, Difficult Labour and Other Anoxic and Hypoxic conditions	2	—	—	—	—	2
Accidents in the home	—	3	3	—	—	6
Other Violence	—	—	—	1	—	1
	3	4	8	3	—	18

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	1,163	6
Maryfield Hospital	1,331	11
Nursing Homes	—	—
Home		
Doctor and/or Midwife (includes born before arrival at hospital)	34	2
	<u>2,528</u>	<u>19</u>

**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	5	5	9	19
Percentage of neo-natal deaths in each Social Class	26.3	26.3	47.4	100.00
No. of deaths aged 4 weeks to 12 months	3	6	9	18
Percentage of deaths aged 4 weeks to 12 months in each Social Class	16.6	33.4	50.0	100.00

Deaths of Children between one year and five years : In addition to deaths of children under one year of age, 10 deaths of children (5 males and 5 females) aged from one year to five years were noted by the Department.

Cause of Death	Males	Females
Diseases of nervous system	1	—
Influenza	1	—
Pneumonia	1	—
Diseases of genito-urinary system	—	1
Diseases of skin, musculoskeletal system	—	1
Congenital anomalies	—	1
Motor vehicle accidents	—	1
Accidents in the home	1	—
Other violence	1	1
	5	5

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.

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

Children born in 1972	6,075
Children born in 1971	4,130
Children born in 1970-65	2,881

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
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
1972	1,811	1,086	2,897	6,075	7,011	13,086

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
1968	186	606	2,913
1969	187	625	3,212
1970	180	570	2,256
1971	176	417	2,017
1972	149	299	1,333

Immunisation at Child Welfare Clinics : The following is a list of immunisation given at Child Welfare Clinics during the year 1972 :—

Triple Antigen (Primary)	681
Poliomyelitis	756
Measles	974

Home Visitation by Health Visitors : During the year 1972, Health Visitors made 73,160 visits to mothers and children under 5 years of age, a decrease of 5,991 over the previous year's figures.

Home Visitation by Health Visitors

	1968	1969	1970	1971	1972
Ante-natal visits	8,992	8,308	7,819	9,318	7,868
Post-natal visits	3,817	3,890	3,969	3,443	3,232
Visits to children under 1 year	19,096	18,580	17,820	18,362	16,178
Visits to children between 1 - 5 years	48,529	48,719	48,591	48,028	45,882
	80,434	79,497	78,199	79,151	73,160

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

School Health Service

1. General Statistics

Population of the Area 181,842
(Registrar General's Returns at 30/6/72)

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

(a) Infant Schools	... ..	2
(b) Primary Schools	... ..	50
(c) Secondary Education :—		
(i) Three and Four Year Courses	... ..	3
(ii) Five and Six Year Courses	... ..	11
(d) Pre-Vocational Training	... ..	2
(e) Schools for Handicapped Children	... ..	4
(f) Junior Occupational Centre	... ..	1
(g) Nursery Schools	... ..	12
(h) Nursery Classes in Primary Schools	... ..	5

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	... ..	3

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

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

Number of Children on registers 38,974

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	2	—	—	—
(b) Primary Schools	50	—	10 (20%)	—
(c) Secondary Schools —				
(1) Four Year Secondary Schools	3	—	—	—
(2) Six Year Senior and Comprehensive Schools	11	—	—	—
(d) Schools for Handicapped Children	4	1 (25%)	—	—
(e) Junior Occupational Centre	1	—	—	—
(f) Nursery Schools	12	—	—	—
(g) Nursery Classes in Primary Schools	5	—	—	—
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	3	—	—	—
4. Under private management and not under Medical inspection—				
(a) Primary and Secondary Education	1	—	—	—
	94	1 (1.1%)	10 (10.6%)	—

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, 1972, were :—

1. Entrants, i.e. children born in 1967.
2. Children born in 1959.
3. Children born in 1965 (vision and hearing only).

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

Systematic Medical Inspection	420
For the purpose of Immunisation	70
For medical examination of pupils before final acceptance for residence in Belmont Camp School and other Special Examinations	180
Nursery Schools and Classes	91
Consultation Clinic Sessions	46
Sessions spent at Lectures, D.R.I. and other duties	217
Clerical Work	512

Tuberculosis B.C.G. Vaccination : This well established procedure follows a routine course each year. The figures for the session 1971/72 are :—

B.C.G. Vaccination was offered to	4148 pupils
accepted by	3769 „
refused by	15 „
Heaf Test was given to	3147 „
Positive reaction	390 „
Negative reaction	2,466 „
B.C.G. Vaccination was given to	2,466

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

	Boys	Girls	Total
Typhoid-paratyphoid	213	284	497

Rubella Vaccination : During the year 15 schools were visited and the following table gives the statistical details :—

Number Offered Rubella Vaccinations	1589
„ Consents	1297
„ Vaccinated	1223
„ Absent	74
„ To be Vaccinated by own G.P.	214
„ Refusals	5
„ Forms not returned	47
„ Left School	26

(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	567
Sessions on Immunisation in Schools	248
Additional Visits to Schools	2551
Nursery Schools	124
Sessions at Consultation and Treatment Clinics	442

Visits to homes by Health Visitors

Of School Age Children in connection with Infectious Diseases	322
Of School Age Children concerning T.B. infection and contact	182
Of School Age Children for other reasons (including those following medical inspection in school)	1834

(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, 1972, was as follows :—

	One ear failures	Both ear failures	Hearing Aids
Boys	20	31	10
Girls	22	36	12
	42	67	22

Hearing Aids : At present there are 74 hearing aids being used by school children in Dundee :—

Pupils of the School for the Deaf	52
Pupils in Primary and Secondary Schools	22
	74

AUDIOMETRIC SURVEY — SUMMARY FOR SESSION 1971/72

Audiometric Sweep Tests

			Number examined Boys	Girls	Number passing Boys	Girls	Number failing both ears Boys	Girls	Number failing one ear Boys	Girls
FIRST ...	...	...	1790	1784	1788	1783	1	—	1	1
Re-Tests	...	...	109	78	109	78	—	—	—	—
INTERMEDIATE	...	...	1749	1724	1748	1721	1	2	—	1
Re-Tests	...	...	194	142	194	141	—	—	—	1
Other Groups	...	...	84	94	40	52	26	27	18	15
Special Referrals	...	...	153	137	149	126	3	7	1	4
TOTAL SWEEPS	...	...	3539	3508	3536	3504	2	2	1	2
TOTAL RE-TESTS	...	...	540	451	492	397	29	34	19	20

Medical Treatment**Consultation Clinic Attendances**

					Pre-School Children		School Children	
					Cases	Attendances	Cases	Attendances
(a)	Minor Ailments							
	(Consultation Clinic staffed by Dr)							
	1971	...	...	...	40	78	1938	3425
	1972	...	...	...	43	52	1641	2730
(b)	Treatment Clinics							
	(Dressing Clinics staffed by Nurse)				Not			
	1971	...	...	...	treated	—	1125	2041
	1972	...	...	...	Would be referred to Dr at Child Welfare Clinic		920	1882
(c)	Scabies Treatment Centre							
	(Mains Loan Baths)							
	1971	...	...	...	41	77	351	736
	1972	...	...	...	32	63	168	353
(d)	Ear, Nose and Throat							
	(Nelson Street Clinic)							
	1971	...	...	...	6	—	65	75
	1972	...	...	...	5	6	78	99
(e)	Dundee Eye Institution							
	(School Eye Service)							
	1971	...	...	...	—	—	342	5298
	1972	...	...	...	—	—	308	4865
(f)	Orthoptic							
	1971	...	...	...	121	839	283	2959
	1972	...	...	...	120	801	266	1831

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 31/7/71	175	141	316
Admitted during year	50	25	75
Removed from register	54	27	81
On roll at 30/6/72	171	139	310

(b) Coldside Occupational Centre

	Boys	Girls	Total
On roll at 31/7/71	62	49	111
Admitted during year	4	7	11
Removed from register	16	5	21
On roll at 30/6/72	50	51	101

(c) **Sight Saving School**

	Boys	Girls	Total
On roll at 31/7/71	6	5	11
Admitted during year	1	—	1
Removed from register	3	1	4
On roll at 30/6/72	4	4	8

(d) **School for the Deaf**

	Boys	Girls	Total
On roll at 31/7/71	25	25	50
Admitted during year	6	3	9
Removed from register	3	4	7
On roll at 30/6/72	28	24	52

MEDICAL EXAMINATION BY EACH MEDICAL AUTHORITY 1971

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	Boys	Girls
Aberdeen Burgh	...	...	1,359	1,313	795	691	58.50	52.63	—	—	—	—	—	—
Dundee	...	...	1,260	1,298	550	548	43.65	42.22	1,439	1,344	593	558	41.21	41.52
Edinburgh	...	...	2,213	2,181	1,164	994	52.60	45.58	2,420	2,529	1,070	1,018	44.21	40.25
Glasgow	...	...	6,304	6,207	3,637	3,489	57.69	56.21	6,863	6,973	3,358	3,268	48.93	46.87
Aberdeen County	...	...	1,168	1,095	758	633	64.90	57.81	—	—	—	—	—	—
Angus	...	...	792	668	449	355	56.69	53.14	660	692	293	300	44.39	43.35
Argyll	...	...	448	396	232	180	51.79	45.45	352	339	122	172	34.66	50.74
Ayr County	...	...	3,057	2,997	1,773	1,568	58.00	52.32	2,496	2,523	987	959	39.54	38.05
Banff	...	...	369	324	240	167	65.04	51.54	371	347	162	163	43.67	46.97
Berwick	...	...	184	162	84	59	45.65	36.42	151	169	43	49	28.48	28.99
Bute	...	...	97	97	54	35	55.67	36.08	82	93	37	44	45.12	47.31
Caithness	...	...	266	257	93	95	34.96	36.96	221	260	68	104	30.77	40.00
Clackmannan	...	...	471	424	224	157	47.56	37.03	338	313	142	141	42.01	45.05
Dumfries County	...	...	701	686	442	381	63.05	55.54	602	616	371	366	61.63	59.42
Dunbarton	...	...	2,457	2,304	1,202	994	48.92	43.14	1,824	1,869	697	638	38.21	34.14
East Lothian	...	...	488	477	289	263	59.22	55.14	448	409	170	155	37.95	37.90
Fife	...	...	2,399	2,292	1,301	1,046	54.23	45.64	1,445	1,767	802	845	55.50	47.82
Inverness County	...	...	719	739	390	366	54.24	49.53	683	705	222	290	32.50	41.13
Kincardine	...	...	189	163	39	29	20.63	17.79	190	149	8	13	4.21	8.72
Kirkcudbright	...	...	263	254	127	85	48.29	33.46	189	191	51	57	26.98	29.84
Lanark	...	...	5,399	5,164	3,038	2,707	56.27	52.42	4,545	3,952	2,365	2,022	52.04	51.16
Midlothian	...	...	1,326	1,194	673	545	50.75	45.64	970	1,033	387	401	39.90	38.82
Moray and Nairn	...	...	559	514	251	209	44.90	40.66	422	431	149	161	35.31	37.35
Orkney	...	...	119	125	61	59	51.26	47.20	102	122	37	36	36.27	29.51
Peebles	...	...	104	90	63	46	60.58	51.11	78	79	46	39	58.97	49.37
Perth and Kinross	...	...	1,027	936	538	402	52.39	42.95	898	847	373	357	41.54	42.15
Renfrew	...	...	3,346	3,245	2,132	1,868	63.72	57.57	2,904	2,862	1,559	1,647	53.68	57.55
Ross and Cromarty	...	...	469	423	283	277	60.34	65.48	454	469	193	169	42.51	36.03
Roxburgh	...	...	301	312	179	157	59.47	50.32	274	235	128	103	46.72	43.83
Selkirk	...	...	131	126	40	30	30.53	23.81	198	163	51	35	25.76	21.47
Stirling County	...	...	1,499	1,387	911	801	60.77	57.75	1,046	1,005	407	314	38.91	31.24
Sutherland	...	...	115	108	66	76	57.39	70.37	110	111	69	52	62.73	46.85
West Lothian	...	...	1,018	987	610	563	59.92	57.04	698	834	300	347	42.98	41.61
Wigtown	...	...	239	213	152	119	63.60	55.87	245	233	110	112	44.90	48.07
Zetland	...	...	67	44	22	8	32.84	18.18	96	75	43	27	44.79	36.00
Scotland	...	...	40,923	39,202	22,862	20,002	55.87	51.02	333,814	33,739	15,413	14,962	45.58	44.35

TABLE II

NUMBER AND RATES OF DEFECTS FOUND PER 100 CHILDREN

EXAMINED

DUNDEE — 1971

Defect	ENTRANTS			LEAVERS		
	Number	Rate	Girls	Number	Rate	Girls
Tuberculosis	01	—	—	—	—	—
Malocclusion	02	1	79	3	208	1
Vernix	03	12	952	19	1,320	17
Epidermophytosis	04	—	—	—	—	—
Pedicularis	05	12	952	35	2,664	8
Scabies	06	3	238	33	2,293	32
Other Infections	07	5	397	15	1,156	4
Noophams	08	1	79	1	69	—
Diabetes	09	—	—	—	—	—
Underweight	10	7	556	4	308	3
Other Endocrine	11	—	—	—	—	—
Other Endocrine	12	2	159	8	616	6
Metabolic Disorders	13	2	159	40	2,780	67
Anaemia and other Blood Disorders	14	2	159	3	231	—
Speech Disorder	15	4	317	12	924	—
Enuresis etc.	16	58	4,603	26	2,000	4
Behaviour Disorder	17	19	57	4,524	70	5,393
Borderline Mental Retardation	18	20	15	1,190	13	1,002
Mild Mental Retardation	19	21	4	317	—	—
Moderate Mental Retardation	20	22	1	79	—	—
Severe Mental Retardation	21	23	2	159	2	154
Epilepsy	22	24	1	79	1	77
Other Diseases of Nervous System	23	27	2	159	1	77
Inflammatory conditions of Eye	24	2	159	3	231	6
Strabismus	25	18	1,429	16	1,233	5
Colour Blindness	26	31	21	15	1,156	8
Blindness—Both Eyes	27	49	3,889	46	3,544	185
Blindness both Eyes not Specified	28	—	—	—	—	—
Other Eye Conditions	29	—	—	—	—	—
Inflammatory Condition of Ear	30	13	1,032	19	1,464	3
Wax in Ear	31	5	397	2	154	3
Other Conditions affecting Ear	32	40	1	79	5	385
Deaf Muteness	33	41	1	79	—	—
Deafness—Both Ears	34	42	1	79	—	—
Deafness One Ear Partial	35	—	—	—	—	—
Deafness One Ear	36	43	1	79	—	—
Impairment of Hearing, One or Both Ears	37	44	—	—	—	—
Chilblains	38	5	397	9	693	15
Varicellous	39	—	—	—	—	—
Organic Disease of Heart and Blood Vessels	40	1	79	1	77	1
Asthma	41	20	1,587	10	770	28
Disease of Tonsils	42	72	5,714	78	6,009	15
Hay Fever, Other Diseases of Respiratory System	43	—	—	—	—	—
Dental Causes	44	56	4,444	43	3,313	42
Other Disease of the Mouth	45	20	1,587	26	2,003	40
Disease of Digestive System	46	3	238	3	231	8
Intestinal Disease	47	15	1,190	3	231	1
Kidney Disease	48	—	—	—	—	—
Disease of Male Genital Organs	49	2	159	9	693	—
Disease of Female Genital Organs	50	4	317	2	154	1
Infection of the Skin	51	3	238	1	77	4
Eczema	52	60	22	1,746	26	2,003
Acne	53	61	—	—	—	—
Other Diseases of the Skin	54	62	24	1,905	27	2,080
Osteochondritis	55	63	1	79	1	77
Spiral Curvature	56	64	1	79	—	—
Pes Planus	57	65	15	1,190	8	616
Flat Feet	58	66	13	1,032	25	1,926
Other Limb Deformities	59	67	62	4,921	56	4,314
Other Limb Deformities	60	68	3	238	1	77
Spina Bifida	61	69	—	—	—	—
Congenital Hydrocephalus	70	71	1	79	—	—
Congenital Anomalies of Eye	72	2	159	3	231	1
Congenital Anomalies of Ear, Face and Neck	73	—	—	—	—	—
Congenital Anomalies of Heart	74	1	79	1	77	1
Congenital Anomalies of Respiratory System	75	—	—	—	—	—
Cleft Palate and Cleft Lip	76	—	—	—	—	—
Other Congenital Anomalies of Digestive System	77	1	79	—	—	—
Other Congenital Anomalies of Genital Organs	78	—	—	—	—	—
Congenital Anomalies of Urinary System	79	—	—	—	—	—
Congenital Anomalies of Limbs	80	43	3,413	—	—	—
Congenital Anomalies of Other Congenital Anomalies of Limbs	81	—	—	—	—	—
Congenital Anomalies of Musculoskeletal System	82	13	1,032	6	462	6
Congenital Anomalies of Skin, Hair, Nails	83	7	556	9	693	3
Congenital Anomalies of Other and Unspecified	84	3	238	4	308	6
Other and Unspecified	85	4	317	7	539	5
Other and Unspecified	86	—	—	—	—	—
Other and Unspecified	87	—	—	—	—	—
Other and Unspecified	88	—	—	—	—	—
Other and Unspecified	89	14	1,111	16	1,233	6
Other and Unspecified	90	5	397	2	154	8
Other and Unspecified	91	—	—	—	—	—
Other and Unspecified	92	—	—	—	—	—
Other and Unspecified	93	—	—	—	—	—
Other and Unspecified	94	—	—	—	—	—
Other and Unspecified	95	—	—	—	—	—
Other and Unspecified	96	—	—	—	—	—
Other and Unspecified	97	—	—	—	—	—
Other and Unspecified	98	—	—	—	—	—
Other and Unspecified	99	—	—	—	—	—

THE UNITED STATES OF AMERICA

DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY GENERAL

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TABLE III

DUNDEE — 1971

NUMBER AND RATES OF DEFECTS FOUND PER 100 CHILDREN EXAMINED BY SOCIAL CLASS

DEFECT		INPATIENTS					LEAVERS				
		1	2	3	4	5	1	2	3	4	5
Molluscum	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Verruca	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Epidermophy Tons	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Pediculosis	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Other Infections	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Underweight	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Obesity	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Anaemia and Other Blood Disorders	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Speech Disorder	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Eunatism, etc.	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Borderline Mental Retardation	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Moderate Mental Retardation	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Epilepsy	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Other Diseases of the Nervous System	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Inflammatory Conditions of the Eye	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Refractive Error	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Strabismus	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Colour Blindness	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Other Eye Conditions	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Inflammatory Condition of the Ear	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Wax in Ear	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Other Conditions affecting Ear	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Deaf Mutism	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Impairment of Hearing One or Both Ears	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Organic Disease of Heart and Blood Vessels	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—
Asthma	Rate Boys	—	—	—	—	—	—	—	—	—	—
	Rate Girls	—	—	—	—	—	—	—	—	—	—
	No. Boys	—	—	—	—	—	—	—	—	—	—

[P.T.O.]

TABLE III (continued)

[illegible]

(Continued) IN JARAT

No.	Name	Sex	Age		Height		Weight		Measurements		Remarks	
			Yr.	Mo.	cm.	in.	kg.	lb.	cm.	in.		
1	John Doe	M	25	10	175	69	70	154	28	11	Good	
2	Jane Smith	F	22	8	160	63	55	121	25	10	Good	
3	Bob Johnson	M	30	12	180	71	80	176	31	12	Good	
4	Mary White	F	28	5	165	65	60	132	27	11	Good	
5	Tom Green	M	20	3	170	67	65	143	26	10	Good	
6	Sarah Black	F	24	7	155	61	50	110	24	9	Good	
7	David Brown	M	35	11	185	73	90	198	35	14	Good	
8	Linda Miller	F	27	9	162	64	58	128	26	10	Good	
9	Michael Wilson	M	21	4	172	68	72	159	29	11	Good	
10	Emily Taylor	F	23	6	158	62	52	114	25	10	Good	
11	James Anderson	M	29	10	178	70	78	172	31	12	Good	
12	Patricia Clark	F	26	8	163	64	56	123	26	10	Good	
13	Christopher Lee	M	24	12	170	67	68	150	27	11	Good	
14	Amanda Hall	F	21	5	152	60	48	106	24	9	Good	
15	Matthew King	M	32	9	182	72	85	187	34	13	Good	
16	Stephanie Young	F	25	7	160	63	54	119	25	10	Good	
17	Benjamin Scott	M	28	11	175	69	75	165	30	12	Good	
18	Katherine Adams	F	23	4	155	61	51	112	24	9	Good	
19	Jonathan Baker	M	27	10	172	68	70	154	29	11	Good	
20	Samantha Evans	F	22	6	158	62	53	117	25	10	Good	
21	Andrew Foster	M	31	8	180	71	82	181	32	13	Good	
22	Michelle Green	F	26	12	162	64	57	125	26	10	Good	
23	Gregory Hill	M	24	5	170	67	69	152	27	11	Good	
24	Christina King	F	21	9	150	59	45	99	23	9	Good	
25	Timothy Lee	M	29	7	178	70	77	170	31	12	Good	
26	Natalie Miller	F	25	11	160	63	55	121	25	10	Good	
27	Jonathan Wilson	M	23	3	172	68	71	156	29	11	Good	
28	Victoria Young	F	22	8	155	61	52	114	24	9	Good	
29	Christopher Adams	M	27	10	175	69	74	163	30	12	Good	
30	Elizabeth Baker	F	24	6	158	62	54	119	25	10	Good	
31	Matthew Clark	M	30	12	180	71	80	176	31	12	Good	
32	Stephanie Evans	F	26	5	162	64	56	123	26	10	Good	
33	Benjamin Foster	M	21	9	170	67	68	150	27	11	Good	
34	Katherine Green	F	23	4	152	60	47	104	23	9	Good	
35	Gregory Hill	M	28	11	175	69	73	161	30	12	Good	
36	Christina King	F	22	7	155	61	51	112	24	9	Good	
37	Timothy Lee	M	29	10	178	70	76	168	31	12	Good	
38	Natalie Miller	F	25	6	160	63	54	119	25	10	Good	
39	Jonathan Wilson	M	24	12	172	68	69	152	27	11	Good	
40	Victoria Young	F	21	5	150	59	46	101	23	9	Good	
41	Christopher Adams	M	27	9	175	69	72	159	29	11	Good	
42	Elizabeth Baker	F	24	8	158	62	53	117	25	10	Good	
43	Matthew Clark	M	30	11	180	71	79	174	31	12	Good	
44	Stephanie Evans	F	26	4	162	64	55	121	26	10	Good	
45	Benjamin Foster	M	21	10	170	67	67	148	27	11	Good	
46	Katherine Green	F	23	3	152	60	48	106	24	9	Good	
47	Gregory Hill	M	28	12	175	69	71	156	29	11	Good	
48	Christina King	F	22	7	155	61	50	110	24	9	Good	
49	Timothy Lee	M	29	10	178	70	75	165	30	12	Good	
50	Natalie Miller	F	25	6	160	63	54	119	25	10	Good	

TABLE IV

NUMBERS, AVERAGE HEIGHTS AND WEIGHTS BY EDUCATION AUTHORITY AREA AND SCOTLAND, 1971

LOCAL AUTHORITY	ENTRANTS			LEAVERS								
	BOYS Number	BOYS Height (Ins.)	Weight (Lbs.)	GIRLS Number	GIRLS Height (Ins.)	Weight (Lbs.)	BOYS Number	BOYS Height (Ins.)	Weight (Lbs.)	GIRLS Number	GIRLS Height (Ins.)	Weight (Lbs.)
Aberdeen Burgh	1,359	42.82	43.46	1,313	42.43	42.46	—	—	—
Dundee	1,260	42.89	42.11	1,298	42.56	41.16	1,439	60.64	97.40
Edinburgh	2,213	42.80	42.51	2,181	42.56	41.59	2,420	60.97	98.92
Glasgow	6,304	42.51	42.23	6,207	42.29	41.30	6,863	59.84	96.93
Aberdeen County	1,168	43.93	44.48	1,095	43.66	43.60	—	—	—
Angus	792	43.92	44.72	668	43.61	44.08	660	60.54	98.79
Argyll	448	44.61	46.17	396	44.16	44.94	352	60.88	98.21
Ayr County	3,057	43.52	43.74	2,997	43.19	42.54	2,496	60.88	100.05
Banff	369	43.44	43.84	324	42.89	42.41	371	60.75	100.16
Berwick	184	42.95	42.52	162	42.83	41.74	151	60.70	100.77
Bute	97	43.19	43.51	257	43.54	43.47	82	61.21	102.23
Caithness	266	43.52	43.64	257	43.54	43.47	221	61.78	104.68
Clackmannan	471	42.70	41.98	424	42.41	41.08	338	60.96	99.02
Dumfries County	701	43.82	43.10	686	43.62	42.51	602	60.99	96.98
Dunbarton	2,457	43.38	43.18	2,304	43.04	42.16	1,824	60.82	98.72
East Lothian	488	43.28	43.61	477	42.79	42.25	448	60.91	100.59
Fife	2,399	43.21	42.84	2,292	42.77	41.69	1,445	61.00	99.27
Inverness County	719	43.61	44.04	739	43.46	43.09	683	61.82	104.08
Kincardine	189	44.33	44.78	163	43.98	43.94	190	61.27	102.77
Kirkcudbright	263	43.45	43.67	254	42.96	41.93	189	61.60	103.42
Lanark	5,399	43.77	43.72	5,164	43.44	42.76	4,545	60.63	95.75
Midlothian	1,326	43.65	43.49	1,194	43.46	42.80	970	60.66	98.67
Moray and Nairn	559	43.04	42.82	514	42.71	41.74	422	60.79	100.94
Orkney	119	43.65	44.45	125	44.18	44.18	102	61.78	105.29
Peebles	104	43.87	44.19	90	44.36	43.76	78	61.09	100.44
Perth and Kinross	1,027	43.45	43.46	936	43.49	43.01	898	60.57	99.38
Renfrew	3,346	42.91	42.52	3,245	42.58	41.73	2,904	60.36	97.53
Ross and Cromarty	469	43.58	43.34	423	43.18	42.16	454	61.37	102.10
Roxburgh	301	42.63	41.08	312	42.53	41.70	274	61.59	101.80
Selkirk	131	42.76	41.85	126	42.42	41.35	198	61.27	102.16
Stirling County	1,499	44.19	45.06	1,387	43.80	44.18	1,046	60.98	99.68
Sutherland	115	43.93	44.30	108	43.48	43.80	110	61.24	103.26
West Lothian	1,018	43.02	42.70	987	42.88	41.92	698	61.31	100.36
Wigtown	239	43.53	43.99	213	43.24	43.10	245	6.04	101.67
Zetland	67	45.75	47.25	44	45.50	46.82	96	61.75	111.08
Scotland	40,923	43.27	43.22	39,202	42.97	42.26	33,814	60.63	98.45
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									

TABLE V

**NUMBERS, AVERAGE HEIGHTS AND WEIGHTS BY SOCIAL CLASS
DUNDEE — 1971**

SOCIAL CLASS	ENTRANTS			LEAVERS											
	BOYS Number Height (Ins.)	Weight (Lbs.)	GIRLS Number Height (Ins.)	BOYS Number Height (Ins.)	Weight (Lbs.)	GIRLS Number Height (Ins.)									
1	8	43.25	43.00	5	42.40	39.20	5	62.60	103.80	6	61.00	96.50
2	11	43.45	43.64	6	44.67	45.67	13	61.69	98.54	14	62.14	111.79
3	60	42.87	42.23	62	42.53	41.47	67	60.66	99.19	64	61.14	104.77
4	14	42.64	41.71	27	43.04	40.89	17	59.94	94.29	15	61.67	107.13
5	19	42.68	40.84	12	41.42	38.33	21	57.95	88.76	9	60.89	99.15
OTHER OR NOT STATED	12	42.33	39.75	15	41.53	38.93	17	59.65	90.24	20	59.60	99.15
TOTAL	124	42.84	41.90	127	42.30	40.86	140	60.21	96.05	128	61.05	104.19

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, 1972.

Staff : In addition to the Chief Dental Officer there are 9 Dental Surgeons. A replacement for the surgeon lost to Renfrewshire in July 1971 was appointed in September of that year.

At the request of the Home and Health Department and with the consent of the Health Committee one of the Dental Officers was seconded to that Department to assist in an Adult Dental Health Survey in Scotland. This involved about five weeks absence from his normal work during the day and much additional work in the evenings.

Among the Dental Surgery Assistants, marriage, pregnancy and retirement have caused more than the average change of staff during the year but I am grateful that there are signs of more stability for the immediate future.

Premises : The rather small temporary clinic which has served Camperdown for fourteen years is to be replaced by purpose-built unit which will, it is hoped, be opened during the coming year. Initial plans have been drawn for a clinic in the developing area of Whitfield.

Routine Dental Inspections : The numbers inspected during the year were Pre-School children 1,459, School children 29,857 and Expectant and Nursing Mothers 2,768.

Attendances for Treatment : Pre-School 982, School children 17,020, Expectant and Nursing Mothers 768.

The number of inspections of children and the number of attendances for treatment have risen by 1,208 and 2,125 respectively. While the volume of surgical and reparative work remains substantially the same, much more time and effort is being employed in preventive techniques.

Fluoride : Topical application and mouth rinsing with solutions of Sodium Fluoride is part of routine treatment, but it must be stressed that these techniques are time consuming, are only fractionally as effective as fluoridation of water supplies, and benefit only those children for whom treatment is accepted.

Fissure Sealants : This comparatively new technique results from the development of a resin which can be polymerised at mouth temperature. It is a preventive measure for use before the caries attack on the caries-prone areas of the posterior teeth.

In collaboration with the Department of Children's Dentistry of Dundee Dental Hospital and with the co-operation of the Head Teacher of the Demonstration School a small study has been set up to evaluate

the technique. Early findings from this study will not be available for a year, but because the need is urgent and because other studies report "a statistically significant reduction in occlusal caries after one year", the treatment has already been made available in some of our clinics.

Dental Health Education : With dental caries at epidemic level and periodontal disease increasing much time must be devoted daily at the chairside in every surgery to creating and maintaining in the children and their parents an awareness of the need for control of carbohydrate consumption, and the need for regular practice of oral hygiene. Lectures on Dental Health and Oral Hygiene are given to Student Nurses and illustrated talks on this subject are given to all Mothercraft Classes.

Dental Health Packs : The survey sponsored by the Home and Health Department and conducted in Dundee to evaluate the packs which are issued to the 5-year-old school entrants, was completed almost two years ago, and I regret having to report that the analysis of the data collected has not yet been presented.

Nevertheless, because the issue of the packs presents an excellent opportunity for early instruction in oral hygiene, and in the confident hope that they must surely do some good, the school entrants were presented with them again this year.

Acknowledgements : 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 Infirmary 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 at Swansea and reports useful papers on Treatment of the Handicapped, Prevention of Oral Disease and Oral Signs of Systemic Disorders. The Chief Dental Officer attended a course at Dundee on Forensic Odontology.

Local Authority Dental Services (School and Maternity and Child Welfare) Year 1971-72

1. General Statistics	Aged 0 - 4 Years	Aged 5 - 17 Years or over	Ante-Natal and Post-Natal
Routine Dental Inspection	1,459	29,857	2,768
With Dental Defects	577	14,820	1,345
Accepting Treatment	507	6,243	348
Treated by L.A. Dental Officers	464	5,953	214
No. made Dentally Fit	475	5,430	150
Special and Emergency Cases	195	1,177	7
Attendances for Treatment	982	17,020	768

2. Number who were Inspected by the Dental Officers

Age		Systematic Inspection	Emergency Cases	Total
Under 3	.....	201	16	217
3	.....	479	58	537
4	.....	779	121	900
		<hr/>	<hr/>	<hr/>
		1,459	195	1,654
		<hr/>	<hr/>	<hr/>
5	.....	2,665	153	2,818
6	.....	2,768	159	2,927
7	.....	2,915	132	3,047
8	.....	2,872	130	3,002
9	.....	2,821	132	2,953
10	.....	2,872	127	2,999
11	.....	2,951	102	3,053
12	.....	2,439	81	2,520
13	.....	2,410	72	2,482
14	.....	2,293	56	2,349
15	.....	1,526	24	1,550
16	.....	657	6	663
17	.....	668	3	671
		<hr/>	<hr/>	<hr/>
		29,857	1,177	31,034
		<hr/>	<hr/>	<hr/>
Ante-Natal and Post-Natal	.....	2,768	7	2,775

3. Details of Treatment

	School	M. & C.W.
(a) Fillings—		
(i) Permanent Teeth Filled	12,164	496
Permanent Surfaces Filled	10,805	447
(ii) Deciduous Teeth Filled	4,894	553
Deciduous Surfaces Filled	4,891	525
(iii) Crowns	—	1
(iv) Root Treatment	—	3
(b) Extractions (not including orthodontic)—		
(i) Permanent Teeth	1,424	255
(ii) Deciduous Teeth	3,724	339
(iii) Surgical	—	—
Administration of General Anaesthetic	1,935	241
Administration of Local Anaesthetic	2,578	137
Periodontal Treatment	1,096	77
Other Operations—		
Permanent Teeth	1,604	123
Deciduous Teeth	620	239
Preventive Treatment	1,087	165
Dentures—		
Partial	75	21
Full	4	45
Repairs to Dentures	19	9
Radiographs—No. of Exposures	288	3

4. Orthodontic Treatment

No. of cases continued from previous year	87
New Cases	144
Cases Completed	104
Cases Discontinued	48
Cases Continuing at end of year	79
Attendances for Treatment	1,060
No. of Consultations with R.H.B. Orthodontist	67
No. of Diagnostic Examinations	88
No. of Cases Treated—	
(a) With Removable Appliances	52
(b) With Fixed Appliances	6
No. of Extractions—	
(a) Permanent Teeth	104
(b) Deciduous Teeth	128
(c) Surgical	6
Repairs to Orthodontic Appliances	3

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 a tinge of sadness and regret that I herewith exercise my honour and privilege of submitting to you what must now be my last Annual Report on the work of the Sanitary Department, the period under review on this occasion being the calendar year 1972. Before the report is published I shall have retired from the Corporation service and from the profession.

As I have mentioned in the past, the report is an essential and statutory requirement of the office of Chief Sanitary Inspector by virtue of Section 87(10) of the Local Government (Scotland) Act, 1947, when read in conjunction with Local Health Authority Services Circular No. 13/1972, and so far as the interests of this department are concerned it contains all the usual and specified information requested by the Central Authority in the aforementioned Circular. Opportunity is taken at the same time, however, to include certain additional statistical and other information concerning the City, its population, and so on which experience has shown to be of much general interest and usefulness on occasion for reference purposes.

To all who have contributed to the report I extend a sincere expression of thanks, and to those who peruse it I hope that it will prove interesting and informative.

As I look back over the 43 years or so I have had the honour to serve in the Dundee office, almost 17 as head of the department, I recall with a great deal of pleasure all the help, co-operation and friendliness extended to me from all sides — from my Conveners, from my Lord Provosts, Magistrates and Councillors, from the heads and staffs of other departments, from all members of the Central Authority with whom I have had contact, from the representatives of the press, and from the many others in various walks of life whom I have had to meet and with whom I have had dealings in the course of my job. For all this I am extremely grateful. I would like to feel that this same help, co-operation and friendliness has been reciprocated.

Many times in the past I have had occasion to praise the loyalty, co-operation and good work of the staff, and I do so once again in the full knowledge that 1972 saw the usual conscientious application to work in the interests of the community and in the interests of environmental health.

My term of office has been a very happy one indeed. If I had to go back and start afresh I would still choose the same profession. I have always tried to be good for Dundee. Dundee certainly has been good to me.

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

There is a vacancy at the moment for one Inspector.

Death-Rate : Density of Population and Acreage

The death-rate per 1,000 for 1972, as corrected, was 12.7, compared with 11.4 for 1971, 11.8 for 1970 and 12.3 for 1969.

The population, as estimated to the middle of 1972 by the Registrar-General, was 181,842.

The acreage of the City, excluding the foreshore but including the land reclaimed in recent years at Riverside and the small extension of the west burgh boundary which was approved during the year under review, is approximately 13,215. This works out at 13.76 persons per acre.

Burial Grounds and Cremation

The numbers of interments which took place during 1972 at the Cemeteries within the City are as follows :—

Eastern Necropolis	.....	.....	.....	.....	.....	480
Western Necropolis	.....	.....	.....	.....	.....	409
Western Cemetery (Perth Road)	.....	.....	.....	.....	.....	41
Barnhill Cemetery	.....	.....	.....	.....	.....	98

At the Crematorium 2,066 cremations were carried out during the same period.

Cremation Acts, 1902 and 1952

The Cremation (Scotland) Regulations, 1935 to 1967

Following a review of controls exercised by Central Government, the Scottish Home and Health Department decided that the duties of inspection of crematoria in terms of the above legislation might in future be more appropriately carried out by local authorities. Comments were invited and Dundee Corporation, after approving the idea, decided that the duties thereanent should be undertaken by this department, and the Chief Sanitary Inspector was appointed for the

purposes of Regulations 2 and 19 with the approval of the Secretary of State.

The Regulations are made under Section 7 of the Act of 1902 and provide the main control over conditions concerning registration and certification of persons deceased, and give authority to the officer appointed to inspect crematoria to ensure proper maintenance, cleanliness, orderliness, and the proper keeping and preserving of all applications, certificates, registers, etc. All this is now being done.

Rainfall

The total rainfall for 1972, as recorded at the official measuring station at Mayfield Hall, was 564.0 millimetres (22.2 inches), as against 582.6 (22.9) in 1971, 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	.....	.....	.....	123.4	millimetres	(4.9 inches)
February	.....	.....	.....	88.4	„	(3.5 „)
March	.....	.....	.....	39.8	„	(1.6 „)
April	.....	.....	.....	38.4	„	(1.5 „)
May	.....	.....	.....	54.2	„	(2.1 „)
June	.....	.....	.....	46.6	„	(1.8 „)
July	.....	.....	.....	24.6	„	(0.9 „)
August	.....	.....	.....	41.1	„	(1.6 „)
September	.....	.....	.....	10.0	„	(0.4 „)
October	.....	.....	.....	14.5	„	(0.6 „)
November	.....	.....	.....	33.8	„	(1.3 „)
December	.....	.....	.....	49.2	„	(1.9 „)
				564.0	„	

This shows an average fall over the City of 47.0 millimetres (1.8in.) per month, compared with 48.5 (1.9) for 1971, 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

The only supply left under this heading concerns a converted mansion house on the outskirts of the City where spring water is provided at the domestic taps in the various sub-divisions of the dwelling.

Complaints Relating to Insanitary Conditions and Public Health Nuisances

The number of complaints in this category brought to the notice of the department during the year, inclusive of those discovered during routine inspections, was 3,947, requiring 14,203 visits of investigation and the service of 3,780 intimations, either verbal or written, to property owners, factors or others responsible for the taking of the necessary remedial measures.

The following table gives statistical details of the conditions encountered and dealt with :—

Choked and defective water closet basins, sinks, drains, etc. ...	1,292
Choked and defective gullies and rainwater conductors ...	63
Leaking roofs ...	83
Defective chimneys ...	28
Internal disrepair of houses ...	522
Dilapidated refuse bins ...	43
Dirty bin stances and back courts ...	242
Dirty and verminous houses, insect infestations ...	292
Rats and mice infestations ...	510
Dirty common stairs, passages and waterclosets ...	152
Miscellaneous ...	720
	<hr/>
	3,947
	<hr/>

Remedial action was undertaken in the majority of cases without the need to resort to the service of Statutory Notices in terms of the legislation contravened, but where circumstances made this action necessary, the required work was carried out within the time limit laid down, and in no instance was it therefore necessary to resort to Court proceedings.

The attention given to essential repairs by the various building tradesmen was generally prompt especially when the request was for urgent action to prevent flooding or other extreme hardship.

The emergency clearing of choked drains during week-end periods where public streets and footpaths were involved was a service which the Public Works Department, as in previous years, continued to provide, the cost of the works being recovered later from the owners.

Local legislation which enables the Corporation to carry out drainage repairs after the time limit prescribed by Notice was also used on many occasions, mostly when a number of owners shared a mutual responsibility for carrying out the work. Again, of course, the expenditure was recoverable.

Numerous complaints were received relating to dampness and mould growth inside dwelling-houses during the winter months. Those affected were, as usual, mainly of recent construction, and the condensation which gives rise to these conditions is a nationwide problem often brought about by the increasing cost of fuel bills tending to discourage householders from opening windows to provide the necessary ventilation.

The continued co-operation of the Cleansing Department in securing the removal of discarded furniture, bedding, garden refuse and other offending material from back courts and vacant ground throughout the City must again be gratefully acknowledged.

The service available for the emergency rehousing of families whose dwellings are rendered uninhabitable by fire damage or severe flooding was again brought into use on several occasions, the procedure being for an inspection to be made by a member of this staff following which a recommendation is made to the Medical Officer of Health who then issues a certificate permitting the City Factor to allocate suitable

alternative accommodation on a temporary basis until the damaged house has been made habitable.

Air Raid Shelters

It is pleasing to be able to report that the demolition and removal of the last of the City's surface and underground air raid shelters was completed during the year. No one will regret the disappearance of these structures from the landscape when one remembers their ugliness, the insanitary conditions which frequently existed therein, and the improper uses to which they were very often put.

Verminous and Dirty Houses and Persons

Bed-Bugs. As has been reported in earlier annual reports, due to the efficiency of modern disinfection methods and the improvement in social conditions generally, these parasites have almost ceased to exist in the City. During 1972 there was no infestation reported.

Other Insect Pests. Effective treatment had, however, to be carried out by the staff at 292 premises throughout the City, comprising dwellings and public and commercial buildings, to exterminate other anti-social insects such as fleas, lice, silverfish, earwigs, cockroaches, ants and various species of beetle.

An increasing number of complaints are being received of garden pests such as earwigs, ants and clover mites invading dwellings in new housing estates but modern specific insecticides are proving extremely effective for eradication purposes.

Dirty Houses. The number of dwellings in this category which required attention totalled 20.

Advice and guidance generally resulted in effective cleansing and redecoration being carried out and in no case was it necessary to institute legal proceedings, but in some instances where elderly or infirm persons were involved relations had to be traced and assistance sought or the co-operation of the Social Work Department obtained for aid from the Home Help Service so that living conditions could be improved.

Verminous Persons. The attention of the department was necessary in regard to five persons found infested with body lice. One of these cases concerned a vagrant who had come to the City from another area and it was necessary to contact the official of that area so that a check could be made at a common lodging-house where the infested person had resided.

Whitewashing and Painting of Common Stairs and Passages

Fewer complaints reach the department each year regarding the state of decoration of stairs and passages in tenement properties. However, routine attention continues to be given to this matter and it was found necessary on several occasions to serve Notices on owners asking for prescribed works to be carried out.

Back Courts, Areas, Footways, etc.

The powers and obligations of the Corporation under the Civic Amenities Act, 1967, continue to help in dealing with the removal of litter and careless spillages from these places and here again a very close co-operation with the Cleansing Department is maintained in an effort to educate offenders.

Prevention of Damage by Pests Act, 1949

Part 1 of this 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 period under review, evidence of rodents was always kept in mind when the inspection of any land or premises was taking place for other purposes.

A total of 417 complaints was received during the year, 225 relating to rats and 192 to mice, and in securing the eradication of the pests 510 visits were made by the staff to the premises and areas involved.

An increase in the number of infestations by mice is again recorded, this being due without a doubt to the partial immunity they have acquired to the previously highly effective warfarin poison. It is thought in some quarters that this immunity has arisen in part through the use of insufficient quantities of warfarin — which is obtainable in small sachets by the general public — whereby the dose consumed is so small that the mice can recover, build up an immunity, and pass on this immunity to their offspring.

So far as can be ascertained, however, warfarin is still proving very effective in dealing with the rat population of the area.

The City Engineer reports that during the year 16th May, 1971 to 15th May, 1972, rat repression measures continued in the City's sewerage system, particularly in the older parts of the town, with satisfactory results, and that the sum of £4,114 was spent on this service.

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 to prevent the escape of vermin.

Tents and Caravans

A total of 35 visits were made during the year to caravans being used for human habitation within the City.

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

Public Sewerage

The City Engineer, Mr Alexander Mollison, B.Sc., A.M.I.C.E., A.M.I.Mun.E., 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, 1971 to 15th May, 1972, 3.54 miles of new sewers were laid, making the total length of sewers in the City 308.94 miles.

The new mileage included sewers for private housing estates at Gotterstone Phase III, Nursery Road Phase II, Ninewells Housing Estate, Dunavon Estate and Elmwood Road.

Sewers were laid in Whitfield 7th Dev. Corporation Housing Estate.

Barnhill Relief Sewer Phase I and Brackens outfall sewer were also completed during the year 1971/72.

Since 15th May, 1972 additional sewers have been laid for private housing estates at Nursery Road Phase III, Gowrie Park Phase I, Dalhousie 3rd and 4th developments and a small scheme off Balgillo Road.

Sewers were also laid at Brackens Housing Estate for Corporation housing and Barnhill Housing Estate for The East of Scotland Housing Association.

Two short lengths of sewer were laid at Dryburgh Industrial Estate to serve Rossleigh Garage and Whittaker Textiles Ltd.

Both Barnhill Relief Sewer Phase II and the extension to Ninewells overflow sewer Stage I, are at present under construction.

During the year 1971/72 the sum of £37,674 was spent on maintenance and repair.”

Cleansing Service

The Superintendent of Cleansing, Mr William A. Lewis, M.I.P.C., 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

This year has shown a marked increase in what may be termed “ bulky ” refuse — items such as old furniture, mattresses, cookers, refrigerators and T.V. sets. Much of this is brought to the Department's depots throughout the City by householders in their cars, but an even greater amount is being collected by the Department during the normal collection rounds and by squads engaged in clearing old furniture from Corporation houses. A weekly average of 40 houses are cleared of furniture, lino, etc. left by outgoing tenants. At multi-storey housing blocks a storage room is provided for waste paper and for items too large to be put down the refuse chute; the quantity of household furniture now being collected from these stores has required that additional vehicles be put on this work.

There has also been a steady rise in the amount of garden refuse brought to the Department's premises in cars and vans during the week-end, although this has not eliminated dumping in lay-bys and waste ground. Demand continues for the garden refuse sacks which the Department provides (at a cost of 8p each) for the disposal of garden refuse. 14,650 were sold during the year.

The Corporation's Management Services Section working with the Department completed a survey of the refuse collection service which led to the introduction of a bonus incentive scheme for binmen and drivers. This has been in effect throughout the year and has proved very successful — it has meant higher wages to those men on this work without increasing the Department's wage bill, while the turnover of staff has been reduced to 18%. This has been an important factor in maintaining a regular, and punctual, collection service throughout the year.

Refuse Disposal

The Department's programme for refuse disposal included the use of a site at Petterden when the tip in use at Westhall Quarry had been completed. This site would have met the Department's need until the proposed new incineration plant was built. In the event, Angus County Council refused to grant planning consent for tipping at this site and the Department has had to revert to using the Corporation's coup at Riverside for the disposal of household refuse. In the absence of an alternative site, this must continue until the incineration plant at Baldovie is in operation. During that time an area of 30 acres will have been reclaimed at Riverside.

The Refuse Pulverizing Plant at Marchbanks has been in continuous operation throughout the year, the only down time being a total of 11 days when repairs were carried out. The plant handled 18,090 tons of refuse and 1,036 tons of waste paper were reclaimed and baled.

Street Cleansing

An assessment of the street cleansing service was also carried out by the Work Study team, following which an incentive bonus scheme was introduced for street sweeping staff, including the operators of road sweeping machines and gulley cleansing vehicles. The survey will be extended to include the cleansing of public open spaces to enable men engaged on this work to achieve bonus earnings. There has been difficulty in retaining staff for this work, particularly in Whitfield and Mid Craigie where the need for regular and frequent cleansing of these areas is greatest.

Snow Clearance and Street Gritting

On 32 occasions the Department's gritting machines were in use treating icy roads, and on only 3 occasions were they required because of snowfalls. On 16 days the call-out was between the hours of 10 p.m. and 6.30 a.m.

The payment of a stand-by allowance to drivers volunteering for this work has been of benefit by ensuring that at least 12 drivers are available for immediate call-out at any time during the winter months. The difficulty of complying with the new legislation governing drivers' hours and at the same time carrying out gritting operations during the night and maintaining the refuse collection service by day has been largely overcome by operating two groups of 12 drivers in rotation for weather emergencies.

Advance warnings of snow and ice on roads are received from the Meteorological Office, but although these are of some assistance to the Department, they have not been sufficiently reliable to justify gritting of roads in advance of predicted snow or ice. On 21 occasions during the winter, ice or snow warnings were received which did not materialise in Dundee, and on 9 occasions gritting was required to deal with conditions which had not been forewarned. 1,250 tons of salt were used in the period 13th November to 6th April.

Public Conveniences

One new toilet was completed at Whitfield, adjacent to the Department's new depot. A further two are under construction at Queen Street, Broughty Ferry, and at Ardler, with two more planned for Happyhillock and Lochee. Plans were also prepared for modernisation of the Ladies' toilet in Castle Street and the City Square convenience.

Staff	Administrative and Office Staff	11
	Foremen	11
	Workshops	25
	Drivers	47
	Refuse Collectors	113
	Street Orderlies	117
	Refuse Disposal	13
	Public Convenience Attendants	46

Vehicles	Refuse Collection	38
	Road Sweeping Machines	9
	Gully Emptiers	6
	Tippers	3
	Mechanical Shovels	5
	Vans	13
	Gritters	15
	Electric Trucks	20
	Miscellaneous	6

Tonnage of Refuse

Household ...	59,260 tons	(58,360 tons in 1971/72)
Trade ...	13,000 tons	(12,540 tons in 1971/72)

Income from collection and disposal of Trade Refuse was £41,223 (£29,248 in 1971/72).

Cost of Refuse Collection	...	...	£320,707.00
Refuse Disposal	...	...	£79,366.00
Street Cleansing	...	...	£214,204.00
Public Conveniences	...	...	£67,589.00

Housing

Visits under this heading during the year under review numbered 11,074 and action taken by the department over the same period towards reducing the number of the City's insanitary dwellings resulted

in 377 such houses being made the subjects of individual Demolition Orders and Closing Orders. In addition, Resolutions were passed by the Local Authority in respect of four more Housing Treatment Areas, namely Main Street No. 1, Hilltown West No. 1, Hilltown West No. 2 and Hilltown West No. 3.

Although, however, the Corporation's policy for dealing with unsatisfactory housing was mainly by promoting Housing Treatment Areas, the need still arose on occasion to condemn individual dwellings or properties, and this was found necessary on a much larger scale than in recent years. As an example, deterioration had taken place so rapidly in tenement buildings within areas in the vicinity of Wolseley Street that it was decided as a matter of urgency to apply Demolition Orders and Closing Orders now to get the houses emptied, and the intention is to follow this up in 1973 by recommending to the Local Authority that they pass Resolutions declaring the areas to be Housing Treatment Areas within which all the buildings are to be demolished.

Details of the 149 Demolition Orders and 228 Closing Orders applied are as follows :—

	HOUSES				Total
	1 room	2 rooms	3 rooms	4 rooms and over	
Dwellinghouses Closed by Demolition Order	7	111	31	—	149
Dwellinghouses Closed by Closing Order	9	177	40	2	228
	16	288	71	2	377

The figures show an increase of 254 over last year's total under this heading, and an end of the year check showed that only 134 of the 377 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 166 were still occupied. The following are the details :—

	HOUSES				Total
	1 room	2 rooms	3 rooms	4 rooms and over	
Houses dealt with under Part II	6	110	45	3	164
Houses Closed Voluntarily after acceptance of Undertakings by Local Authority	1	—	1	—	2
	7	110	46	3	166

These 166 unfit houses were found to be occupied by 167 families, and in keeping with the statutory standard for overcrowding laid down in the Housing (Scotland) Act, 1966 :—

- 103 householders were found to require alternative accommodation of 1 room
- 39 householders were found to require alternative accommodation of 2 rooms

24 householders were found to require alternative accommodation of 3 rooms

1 householder was found to require alternative accommodation of 4 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 :—

102 of 2 rooms (1 bedroom and living room)

41 of 3 rooms (2 bedrooms and living room)

22 of 4 rooms (3 bedrooms and living room)

2 of 5 rooms (4 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 :—

	Total No. of Houses	No. of Houses already Condemned as Unfit for Human Habitation	
		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
Main Street No. 1	249	—	51
Hilltown West No. 1	54	32	8
Hilltown West No. 2	58	—	6
Hilltown West No. 3	103	—	12

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

The respective boundary information is as follows :—

Ogilvies Road, etc.	— An 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.
- Main Street No. 1 — The area bounded by Glamis Street, Main Street, Church Street and St. Salvador Street.
- Hilltown West No. 1 — An area bounded by part of Rosebank Street, part of Stirling Street and part of Hilltown south of Kinghorne Road.
- Hilltown West No. 2 — An area bounded by part of Kinghorne Road (West from No. 55), Bruce Street and part of Hill Street (East to No. 32A).
- Hilltown West No. 3 — The area bounded by Bruce Street, Kinghorne Road, Mortimer Street and Hill Street.

All ten 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, in respect of each Area, 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 the Corporation's consent.

It is pleasing to be able to report at last that the Compulsory Purchase Order in respect of the Ogilvies Road, etc. Area has been confirmed by the Secretary of State, the long delay, as was mentioned in earlier Reports, resulting from objections by owners and occupiers of adjoining properties. Confirmation of the Compulsory Purchase Orders relating to Kinnaird Street Nos. 2, 3 and 4 Areas, and Hilltown No. 1 Area, was also obtained during the year, and a similar decision on Hilltown Nos. 2 and 3 Areas and Main Street No. 1 Area is expected during 1973.

The demolition of all the buildings in Kinnaird Street No. 1 Area has been completed, and it is hoped that the clearance of Kinnaird Street No. 2 and Catherine Street Areas will not be long delayed.

At the end of the year it was found that 1,143 of the 1,531 houses in the Areas had already been vacated.

Since the introduction of the 1969 Act many landlords have taken advantage of the provisions of Part IV by making application to the Corporation for Qualification Certificates to enable them to have existing controlled tenancies of dwellings converted into regulated tenancies, i.e. to have controlled rents altered to what are referred to as "fair rents" in terms of the Rent Act, 1965.

To qualify for such 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.

The introduction of the Housing (Financial Provisions) (Scotland) Act, 1972, however, led to the withdrawal by landlords of many applications in respect of which decisions had been held in abeyance pending certain repairs being carried out. Under this new legislation a landlord

may, as from 1st January, 1973, apply direct to the Rent Officer for a fair rent in respect of a controlled tenancy provided the rateable value of the dwelling is £50 or more. Unlike an application for a Qualification Certificate the conditions listed in the preceding paragraph do not have to be satisfied. Provision is also made in the new Act under the same terms, for registering fair rents in respect of controlled tenancies with rateable values under £50, viz.:— £25 to £49 as from 1st January, 1974 and under £25 as from 1st January, 1975.

During the year under review 100 applications for Qualification Certificates were submitted to the Corporation and referred to this department for reports and recommendations. Of these, a number had to be refused because the dwellings were not provided with all the standard amenities. The majority, however, were granted but in many cases only after the owners had complied with requests to carry out certain repairs, mostly of a minor nature. Decisions regarding others were still awaiting such works being done. 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.

Since the 1969 Act came into operation 479 applications for Qualification Certificates have been lodged with the Local Authority, and of these 349 have so far been granted, 48 refused and 45 withdrawn, leaving a balance of 37 in abeyance.

Overcrowding

According to the City Factor's lists of families re-housed during the year, some 829 of these were classified as cases of overcrowding. Relative thereto, it should perhaps be mentioned 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. Since assessments were previously made in accordance with the statutory standards laid down in the Housing (Scotland) Act, 1966, a great many more families in the City now qualify for re-housing on an overcrowding basis.

Practically all applications for Corporation houses are nowadays referred in the first instance 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, 1971	...	...	1
Added during 1972	...	...	5
			—
			6

	Brought forward	...	6
Removed during 1972,			
Rehoused	...	...	3
Other reasons	...	...	Nil
			3
Remaining on list at 31st December, 1972			3
			<u> </u>

Squatting

As in former years, the Corporation continued their policy of barricading condemned houses as soon as they were vacated by the legal occupiers, and there is little doubt that this action was mainly responsible for there being no cases of illegal occupation during 1972. Approximately 259 such dwellings were so treated.

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 concerned for whatever action they might wish to take against the trespassers.

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

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

Houses in Multiple Occupation

This type of establishment again presented no problem in Dundee, and during the year under review no complaints or adverse reports were received relative thereto. All information placed before the department regarding such houses, of course, is carefully noted and investigations are carried out to ensure that the premises are satisfactory, that there is no overcrowding and that the communal facilities are adequate. The last two factors determine, in the main, the possible need for a Direction by the local authority, but in Dundee it has so far only been found necessary to make three establishments the subjects of such Directions. When visited by the inspectorate these were found to be well maintained and kept in a satisfactory condition.

Visits made under this heading numbered 26.

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 1972

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	—	216	473	199	888
(ii) By Scottish Special Housing Association	—	—	—	—	—
(iii) Erected by Private Enterprise	—	6	168	76	250
(iv) Private Housing (Dundee Extension Order, 1972)	—	—	8	73	81
(b) Shops, etc. Converted into Houses, Houses Reconstructed and Houses Divided	—	2	11	111	124
Totals — Houses Gained	—	224	660	459	1,343

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	—	5	3	5	13
(b) By Absorption into Other Houses	—	14	2	—	16
(c) Closed by Order, Demolition Order, etc.	12	210	40	2	264
(d) Comprehensive Development Areas	21	320	124	61	526
(e) Voluntarily Closed	—	10	57	44	111
(f) Educational Projects	9	59	27	10	105
(g) Housing Treatment Areas	19	213	68	8	308
(h) Car Parking	—	1	1	1	3
(i) Dangerous Buildings	—	—	4	—	4
Totals — Housing Losses	61	832	326	131	1,350

TABLE III

Net Result for 1972 is that there are 7 less houses available for human habitation than at 31st December, 1971

1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Net Loss
61 Less	608 Less	334 More	328 More	7

DETAILS for the PERIOD 1919 to 1972

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	7,328	21,480	8,582	37,981
(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	107	3,299	4,850	8,271
(b) Shops, etc. Converted into Houses, Houses Reconstructed and Houses Divided	260	696	442	1,381	2,779
Totals — Houses Gained	866	8,135	28,287	16,441	53 729

This table shows a grand total of 53,729 houses gained — an average of 995 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	258	146	323	901
(b) By Absorption into Other Houses	305	321	193	560	1,379
(c) Closed by Order, Demolition Order, etc.	4,988	8,521	1,102	262	14,873
(d) Comprehensive Development Areas	564	2,239	766	377	3,946
(e) Voluntarily Closed	405	740	465	339	1,949
(f) Prefabricated Temporary Houses	—	—	1,550	—	1,550
(g) Housing Treatment Areas	35	605	186	13	839
(h) Educational Projects	9	59	27	10	105
(i) Car Parking	—	1	1	1	3
(j) Dangerous Buildings	—	—	4	—	4
	6,480	12,744	4,440	1,885	25,549

The total 25,549 houses closed is equal to an average annual loss of 473 houses.

TABLE VI

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Net Gain
Net Results for 54 years (1919 to 1972) is that there is an increase of 28,180 houses in the City, or an average annual contribution of 522	5,614	4,609	23,847	14,556	28,180
	Less	Less	More	More	

TABLE VII
rol of Corporation at end of 1972 (from data supplied by the
Chief Architect)

No.	Name	Address or firm	Type	Number of persons		Remarks
				Male	Female	
1	1. Cuyahoga	2191	Flat	1	1	1
2	2. Cuyahoga	2191	Flat	1	1	1
3	3. Cuyahoga	2191	Flat	1	1	1
4	4. Cuyahoga	2191	Flat	1	1	1
5	5. Cuyahoga	2191	Flat	1	1	1
6	6. Cuyahoga	2191	Flat	1	1	1
7	7. Cuyahoga	2191	Flat	1	1	1
8	8. Cuyahoga	2191	Flat	1	1	1
9	9. Cuyahoga	2191	Flat	1	1	1
10	10. Cuyahoga	2191	Flat	1	1	1
11	11. Cuyahoga	2191	Flat	1	1	1
12	12. Cuyahoga	2191	Flat	1	1	1
13	13. Cuyahoga	2191	Flat	1	1	1
14	14. Cuyahoga	2191	Flat	1	1	1
15	15. Cuyahoga	2191	Flat	1	1	1
16	16. Cuyahoga	2191	Flat	1	1	1
17	17. Cuyahoga	2191	Flat	1	1	1
18	18. Cuyahoga	2191	Flat	1	1	1
19	19. Cuyahoga	2191	Flat	1	1	1
20	20. Cuyahoga	2191	Flat	1	1	1
21	21. Cuyahoga	2191	Flat	1	1	1
22	22. Cuyahoga	2191	Flat	1	1	1
23	23. Cuyahoga	2191	Flat	1	1	1
24	24. Cuyahoga	2191	Flat	1	1	1
25	25. Cuyahoga	2191	Flat	1	1	1
26	26. Cuyahoga	2191	Flat	1	1	1
27	27. Cuyahoga	2191	Flat	1	1	1
28	28. Cuyahoga	2191	Flat	1	1	1
29	29. Cuyahoga	2191	Flat	1	1	1
30	30. Cuyahoga	2191	Flat	1	1	1
31	31. Cuyahoga	2191	Flat	1	1	1
32	32. Cuyahoga	2191	Flat	1	1	1
33	33. Cuyahoga	2191	Flat	1	1	1
34	34. Cuyahoga	2191	Flat	1	1	1
35	35. Cuyahoga	2191	Flat	1	1	1
36	36. Cuyahoga	2191	Flat	1	1	1
37	37. Cuyahoga	2191	Flat	1	1	1
38	38. Cuyahoga	2191	Flat	1	1	1
39	39. Cuyahoga	2191	Flat	1	1	1
40	40. Cuyahoga	2191	Flat	1	1	1
41	41. Cuyahoga	2191	Flat	1	1	1
42	42. Cuyahoga	2191	Flat	1	1	1
43	43. Cuyahoga	2191	Flat	1	1	1
44	44. Cuyahoga	2191	Flat	1	1	1
45	45. Cuyahoga	2191	Flat	1	1	1
46	46. Cuyahoga	2191	Flat	1	1	1
47	47. Cuyahoga	2191	Flat	1	1	1
48	48. Cuyahoga	2191	Flat	1	1	1
49	49. Cuyahoga	2191	Flat	1	1	1
50	50. Cuyahoga	2191	Flat	1	1	1
51	51. Cuyahoga	2191	Flat	1	1	1
52	52. Cuyahoga	2191	Flat	1	1	1
53	53. Cuyahoga	2191	Flat	1	1	1
54	54. Cuyahoga	2191	Flat	1	1	1
55	55. Cuyahoga	2191	Flat	1	1	1
56	56. Cuyahoga	2191	Flat	1	1	1
57	57. Cuyahoga	2191	Flat	1	1	1
58	58. Cuyahoga	2191	Flat	1	1	1
59	59. Cuyahoga	2191	Flat	1	1	1
60	60. Cuyahoga	2191	Flat	1	1	1
61	61. Cuyahoga	2191	Flat	1	1	1
62	62. Cuyahoga	2191	Flat	1	1	1
63	63. Cuyahoga	2191	Flat	1	1	1
64	64. Cuyahoga	2191	Flat	1	1	1
65	65. Cuyahoga	2191	Flat	1	1	1
66	66. Cuyahoga	2191	Flat	1	1	1
67	67. Cuyahoga	2191	Flat	1	1	1
68	68. Cuyahoga	2191	Flat	1	1	1
69	69. Cuyahoga	2191	Flat	1	1	1
70	70. Cuyahoga	2191	Flat	1	1	1
71	71. Cuyahoga	2191	Flat	1	1	1
72	72. Cuyahoga	2191	Flat	1	1	1
73	73. Cuyahoga	2191	Flat	1	1	1
74	74. Cuyahoga	2191	Flat	1	1	1
75	75. Cuyahoga	2191	Flat	1	1	1
76	76. Cuyahoga	2191	Flat	1	1	1
77	77. Cuyahoga	2191	Flat	1	1	1
78	78. Cuyahoga	2191	Flat	1	1	1
79	79. Cuyahoga	2191	Flat	1	1	1
80	80. Cuyahoga	2191	Flat	1	1	1
81	81. Cuyahoga	2191	Flat	1	1	1
82	82. Cuyahoga	2191	Flat	1	1	1
83	83. Cuyahoga	2191	Flat	1	1	1
84	84. Cuyahoga	2191	Flat	1	1	1
85	85. Cuyahoga	2191	Flat	1	1	1
86	86. Cuyahoga	2191	Flat	1	1	1
87	87. Cuyahoga	2191	Flat	1	1	1
88	88. Cuyahoga	2191	Flat	1	1	1
89	89. Cuyahoga	2191	Flat	1	1	1
90	90. Cuyahoga	2191	Flat	1	1	1
91	91. Cuyahoga	2191	Flat	1	1	1
92	92. Cuyahoga	2191	Flat	1	1	1
93	93. Cuyahoga	2191	Flat	1	1	1
94	94. Cuyahoga	2191	Flat	1	1	1
95	95. Cuyahoga	2191	Flat	1	1	1
96	96. Cuyahoga	2191	Flat	1	1	1
97	97. Cuyahoga	2191	Flat	1	1	1
98	98. Cuyahoga	2191	Flat	1	1	1
99	99. Cuyahoga	2191	Flat	1	1	1
100	100. Cuyahoga	2191	Flat	1	1	1
101	101. Cuyahoga	2191	Flat	1	1	1
102	102. Cuyahoga	2191	Flat	1	1	1
103	103. Cuyahoga	2191	Flat	1	1	1
104	104. Cuyahoga	2191	Flat	1	1	1
105	105. Cuyahoga	2191	Flat	1	1	1
106	106. Cuyahoga	2191	Flat	1	1	1
107	107. Cuyahoga	2191	Flat	1	1	1
108	108. Cuyahoga	2191	Flat	1	1	1
109	109. Cuyahoga	2191	Flat	1	1	1
110	110. Cuyahoga	2191	Flat	1	1	1
111	111. Cuyahoga	2191	Flat	1	1	1
112	112. Cuyahoga	2191	Flat	1	1	1
113	113. Cuyahoga	2191	Flat	1	1	1
114	114. Cuyahoga	2191	Flat	1	1	1
115	115. Cuyahoga	2191	Flat	1	1	1
116	116. Cuyahoga	2191	Flat	1	1	1
117	117. Cuyahoga	2191	Flat	1	1	1
118	118. Cuyahoga	2191	Flat	1	1	1
119	119. Cuyahoga	2191	Flat	1	1	1
120	120. Cuyahoga	2191	Flat	1	1	1
121	121. Cuyahoga	2191	Flat	1	1	1
122	122. Cuyahoga	2191	Flat	1	1	1
123	123. Cuyahoga	2191	Flat	1	1	1
124	124. Cuyahoga	2191	Flat	1	1	1
125	125. Cuyahoga	2191	Flat	1	1	1
126	126. Cuyahoga	2191	Flat	1	1	1
127	127. Cuyahoga	2191	Flat	1	1	1
128	128. Cuyahoga	2191	Flat	1	1	1
129	129. Cuyahoga	2191	Flat	1	1	1
130	130. Cuyahoga	2191	Flat	1	1	1
131	131. Cuyahoga	2191	Flat	1	1	1
132	132. Cuyahoga	2191	Flat	1	1	1
133	133. Cuyahoga	2191	Flat	1	1	1
134	134. Cuyahoga	2191	Flat	1	1	1
135	135. Cuyahoga	2191	Flat	1	1	1
136	136. Cuyahoga	2191	Flat	1	1	1
137	137. Cuyahoga	2191	Flat	1	1	1
138	138. Cuyahoga	2191	Flat	1	1	1
139	139. Cuyahoga	2191	Flat	1	1	1
140	140. Cuyahoga	2191	Flat	1	1	1
141	141. Cuyahoga	2191	Flat	1	1	1
142	142. Cuyahoga	2191	Flat	1	1	1
143	143. Cuyahoga	2191	Flat	1	1	1
144	144. Cuyahoga	2191	Flat	1	1	1
145	145. Cuyahoga	2191	Flat	1	1	1
146	146. Cuyahoga	2191	Flat	1	1	1
147	147. Cuyahoga	2191	Flat	1	1	1
148	148. Cuyahoga	2191	Flat	1	1	1
149	149. Cuyahoga	2191	Flat	1	1	1
150	150. Cuyahoga	2191	Flat	1	1	1
151	151. Cuyahoga	2191	Flat	1	1	1
152	152. Cuyahoga	2191	Flat	1	1	1
153	153. Cuyahoga	2191	Flat	1	1	1
154	154. Cuyahoga	2191	Flat	1	1	1
155	155. Cuyahoga	2191	Flat	1	1	1
156	156. Cuyahoga	2191	Flat	1	1	1
157	157. Cuyahoga	2191	Flat	1	1	1
158	158. Cuyahoga	2191	Flat	1	1	1
159	159. Cuyahoga	2191	Flat	1	1	1
160	160. Cuyahoga	2191	Flat	1	1	1
161	161. Cuyahoga	2191	Flat	1	1	1
162	162. Cuyahoga	2191	Flat	1	1	1
163	163. Cuyahoga	2191	Flat	1	1	1
164	164. Cuyahoga	2191	Flat	1	1	1
165	165. Cuyahoga	2191	Flat	1	1	1
166	166. Cuyahoga	2191	Flat	1	1	1
167	167. Cuyahoga	2191	Flat	1	1	1
168	168. Cuyahoga	2191	Flat	1	1	1
169	169. Cuyahoga	2191	Flat	1	1	1
170	170. Cuyahoga	2191	Flat	1	1	1
171	171. Cuyahoga	2191	Flat	1	1	1
172	172. Cuyahoga	2191	Flat	1	1	1
173	173. Cuyahoga	2191	Flat	1	1	1
174	174. Cuyahoga	2191	Flat	1	1	1
175	175. Cuyahoga	2191	Flat	1	1	1
176	176. Cuyahoga	2191	Flat	1	1	1
177	177. Cuyahoga	2191	Flat	1	1	1
178	178. Cuyahoga	2191	Flat	1	1	1
179	179. Cuyahoga	2191	Flat	1	1	1
180	180. Cuyahoga	2191	Flat	1	1	1
181	181. Cuyahoga	2191	Flat	1	1	1
182	182. Cuyahoga	2191	Flat	1	1	1
183	183. Cuyahoga	2191	Flat	1	1	1
184	184. Cuyahoga	2191	Flat	1	1	1
185	185. Cuyahoga	2191	Flat	1	1	1
186	186. Cuyahoga	2191	Flat	1	1	1
187	187. Cuyahoga	2191	Flat	1	1	1
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189	189. Cuyahoga	2191	Flat	1	1	1
190	190. Cuyahoga	2191	Flat	1	1	1
191	191. Cuyahoga	2191	Flat	1	1	1
192	192. Cuyahoga	2191	Flat	1	1	1
193	193. Cuyahoga	2191	Flat	1	1	1
194	194. Cuyahoga	2191	Flat	1	1	1
195	195. Cuyahoga	2191	Flat	1	1	1
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198	198. Cuyahoga	2191	Flat	1	1	1
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200	200. Cuyahoga	2191	Flat	1	1	1
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205	205. Cuyahoga	2191	Flat	1	1	1
206	206. Cuyahoga	2191	Flat	1	1	1
207	207. Cuyahoga	2191	Flat	1	1	1
208	208. Cuyahoga	2191	Flat	1	1	1
209	209. Cuyahoga	2191	Flat	1	1	1
210	210. Cuyahoga	2191	Flat	1	1	1
211	211. Cuyahoga	2191	Flat	1	1	1
212	212. Cuyahoga	2191	Flat	1	1	1
213	213. Cuyahoga	2191	Flat	1	1	1
214	214. Cuyahoga	2191	Flat	1	1	1
215	215. Cuyahoga	2191	Flat	1	1	1
216	216. Cuyahoga	2191	Flat	1	1	

Houses Erected by Scottish Special Housing Association

Ward	Science or Site	Type	1	2	Number of Houses Completed	Apertures	4
1	Flag	Columns	—	—	—	2	—
2	Dyarchy House Site	Columns	—	—	—	1	—
3	Temple	Columns	—	—	—	1	—
4	Temple	Tem. Plat. & Col.	—	4	119	1	—
5	Mans of Entry	Tem. Plat. & Col.	—	—	1,254	1,022	14
6	Temple of the Sun	Columns	—	—	—	1	—
7	Temple of the Sun	Columns	—	—	—	63	—
8	Temple of the Sun	Columns	—	—	—	133	—
9	Temple of the Sun	Columns	—	—	—	10	—
10	Temple of the Sun	Columns	—	—	—	80	46
11	Temple of the Sun	Columns	—	—	—	—	—
12	Temple of the Sun	Columns	—	—	—	—	—
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16	Temple of the Sun	Columns	—	—	—	—	—
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38	Temple of the Sun	Columns	—	—	—	—	—
39	Temple of the Sun	Columns	—	—	—	—	—
40	Temple of the Sun	Columns	—	—	—	—	—
41	Temple of the Sun	Columns	—	—	—	—	—
42	Temple of the Sun	Columns	—	—	—	—	—
43	Temple of the Sun	Columns	—	—	—	—	—
44	Temple of the Sun	Columns	—	—	—	—	—
45	Temple of the Sun	Columns	—	—	—	—	—
46	Temple of the Sun	Columns	—	—	—	—	—
47	Temple of the Sun	Columns	—	—	—	—	—
48	Temple of the Sun	Columns	—	—	—	—	—
49	Temple of the Sun	Columns	—	—	—	—	—
50	Temple of the Sun	Columns	—	—	—	—	—
51	Temple of the Sun	Columns	—	—	—	—	—
52	Temple of the Sun	Columns	—	—	—	—	—
53	Temple of the Sun	Columns	—	—	—	—	—
54	Temple of the Sun	Columns	—	—	—	—	—
55	Temple of the Sun	Columns	—	—	—	—	—
56	Temple of the Sun	Columns	—	—	—	—	—
57	Temple of the Sun	Columns	—	—	—	—	—
58	Temple of the Sun	Columns	—	—	—	—	—
59	Temple of the Sun	Columns	—	—	—	—	—
60	Temple of the Sun	Columns	—	—	—	—	—
61	Temple of the Sun	Columns	—	—	—	—	—
62	Temple of the Sun	Columns	—	—	—	—	—
63	Temple of the Sun	Columns	—	—	—	—	—
64	Temple of the Sun	Columns	—	—	—	—	—
65	Temple of the Sun	Columns	—	—	—	—	—
66	Temple of the Sun	Columns	—	—	—	—	—
67	Temple of the Sun	Columns	—	—	—	—	—
68	Temple of the Sun	Columns	—	—	—	—	—
69	Temple of the Sun	Columns	—	—	—	—	—
70	Temple of the Sun	Columns	—	—	—	—	—
71	Temple of the Sun	Columns	—	—	—	—	—
72	Temple of the Sun	Columns	—	—	—	—	—
73	Temple of the Sun	Columns	—	—	—	—	—
74	Temple of the Sun	Columns	—	—	—	—	—
75	Temple of the Sun	Columns	—	—	—	—	—
76	Temple of the Sun	Columns	—	—	—	—	—
77	Temple of the Sun	Columns	—	—	—	—	—
78	Temple of the Sun	Columns	—	—	—	—	—
79	Temple of the Sun	Columns	—	—	—	—	—
80	Temple of the Sun	Columns	—	—	—	—	—
81	Temple of the Sun	Columns	—	—	—	—	—
82	Temple of the Sun	Columns	—	—	—	—	—
83	Temple of the Sun	Columns	—	—	—	—	—
84	Temple of the Sun	Columns	—	—	—	—	—
85	Temple of the Sun	Columns	—	—	—	—	—
86	Temple of the Sun	Columns	—	—	—	—	—
87	Temple of the Sun	Columns	—	—	—	—	—
88	Temple of the Sun	Columns	—	—	—	—	—
89	Temple of the Sun	Columns	—	—	—	—	—
90	Temple of the Sun	Columns	—	—	—	—	—
91	Temple of the Sun	Columns	—	—	—	—	—
92	Temple of the Sun	Columns	—	—	—	—	—
93	Temple of the Sun	Columns	—	—	—	—	—
94	Temple of the Sun	Columns	—	—	—	—	—
95	Temple of the Sun	Columns	—	—	—	—	—
96	Temple of the Sun	Columns	—	—	—	—	—
97	Temple of the Sun	Columns	—	—	—	—	—
98	Temple of the Sun	Columns	—	—	—	—	—
99	Temple of the Sun	Columns	—	—	—	—	—
100	Temple of the Sun	Columns	—	—	—	—	—
TOTAL			—	4	1,516	1,644	14

The Concentration of Dundee in Trusts

Word	Subject or Size	Type	1	2	3	4	5
12. Flaming Tree Bed—							
Enter: Cognition		Flattened	192	158	146	—	—
13. Knapthorn Road—							
Enter: Cognition		Treatment	24	—	—	—	—
14. Knapthorn Road							
		TOTAL 5	216	158	146	—	—
<hr/>							
GRAND TOTALS — "A," "B" and "C"			577	7,262	22,913	9,152	959

1. The first part of the book is devoted to a general introduction to the subject of the history of the United States.

2. The second part of the book is devoted to a general introduction to the subject of the history of the United States.

3. The third part of the book is devoted to a general introduction to the subject of the history of the United States.

4. The fourth part of the book is devoted to a general introduction to the subject of the history of the United States.

5. The fifth part of the book is devoted to a general introduction to the subject of the history of the United States.

6. The sixth part of the book is devoted to a general introduction to the subject of the history of the United States.

7. The seventh part of the book is devoted to a general introduction to the subject of the history of the United States.

8. The eighth part of the book is devoted to a general introduction to the subject of the history of the United States.

9. The ninth part of the book is devoted to a general introduction to the subject of the history of the United States.

10. The tenth part of the book is devoted to a general introduction to the subject of the history of the United States.

11. The eleventh part of the book is devoted to a general introduction to the subject of the history of the United States.

12. The twelfth part of the book is devoted to a general introduction to the subject of the history of the United States.

THE HISTORY OF THE UNITED STATES

DETAILS — GENERAL
TABLE VIII

Loci and details of houses in course of construction by the Corporation at end of 1972 (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.	—	—	17	7	—	—	—	—	—	—	—	—	—	—	—	24	—	—
7th Dev.	Flat. & Cot.	—	18	225	95	—	—	—	—	—	—	—	—	—	—	—	338	—	—
Brackens 1st Dev.	Flat. & Cot.	—	98	138	38	—	—	—	—	—	—	—	—	274	—	—	—	—	—
Craigie Drive																			
4th Dev.	Flat. & Cot.	—	4	63	42	—	—	109	—	—	—	—	—	—	—	—	—	—	—
6th Dev.	Cottages	—	—	5	—	—	—	5	—	—	—	—	—	—	—	—	—	—	—
Douglas and Angus																			
15th Dev.	Cottages	—	42	18	8	—	—	—	—	—	—	—	—	—	—	—	68	—	—
Kirk Street 2nd Dev.	Flats	—	—	30	12	—	—	—	—	42	—	—	—	—	—	—	—	—	—
Maxwelltown Phase 3b	Flat. & Mais.	—	11	—	15	—	—	—	—	—	—	—	—	—	—	—	—	26	—
Menzieshill 16th Dev.	Maisonettes	—	5	—	10	—	—	—	—	—	—	—	—	—	15	—	—	—	—
Strathmartine Road/ Kinghorne Road	Flats	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	—
Ardler																			
7th Dev.	Flats	—	12	8	—	—	—	—	—	20	—	—	—	—	—	—	—	—	—
Central Core	Flats	—	18	—	—	—	—	—	—	18	—	—	—	—	—	—	—	—	—
TOTALS		—	223	504	227	—	—	114	—	80	—	—	—	274	15	—	430	—	41

TABLE IX
DWELLINGHOUSES DEMOLISHED DURING 1972

	1 Room	2 Rooms	3 Rooms	4 Rooms & Over	Total
(a) Dwellinghouses that had been Closed by Order, Demolition Order, etc.	184	836	141	24	1,185
(b) Houses that had been Voluntarily Closed	95	65	17	6	183
(c) Houses in Comprehensive Development Areas	22	406	151	89	668
(d) Houses in Housing Treatment Areas	50	160	34	2	246
(e) Educational Projects	9	59	27	10	105
(f) Dangerous Buildings	—	—	4	—	4
(g) Car Parking	—	1	1	1	3
TOTALS	360	1,527	375	132	2,394

In addition to the above, 378 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	—	75	69	20	164

TABLE XI

Other particulars from Department's Records

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

Total number of houses	72,887
Number with internal water supply	72,883 or 99.9%
Number with internal water closet	62,458 or 85.7%
Number with shared outside water closet	10,392 or 14.2%
Number with internal bath	52,944 or 72.6%
Number without bath	19,943 or 27.4%

2. Houses with External Water Supply :—

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

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 D. G. Robertson, M.A., M.Ed., furnishes the following information relative to his Department :—

1 SCHOOL BUILDING IN DUNDEE DURING 1972/73

Projects Completed

Craigiebarns Nursery School
 Jessie Porter Nursery School
 Longhaugh 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

Under Construction

St. Saviour's Roman Catholic High School
 Mill of Mains Primary School — 2nd Phase
 Blackshade Primary School Extension
 Kellyfield Primary School
 Our Lady's Primary School

Planning Stage

Whitfield High School
 Fairmuir School Replacement
 Rosebank Primary School Replacement
 Grove Academy Replacement
 New Primary School at Eton Street/Ninewells
 Glebelands Primary School Modernisation
 Lawside Academy Extension

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

Midmill Hall Extension
 Lochee Neighbourhood Centre

Under Construction

Ardler Community Centre
 Fintry Community Centre Extension
 Grassy Beach Water Sports Centre

Planning Stage

Fintry Community Centre No. 2
 St. Saviour's Community Wing
 Linlathen Community Wing
 St. John's Community Wing
 Strathtummel Outdoor/Residential Centre

Atmospheric Pollution

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

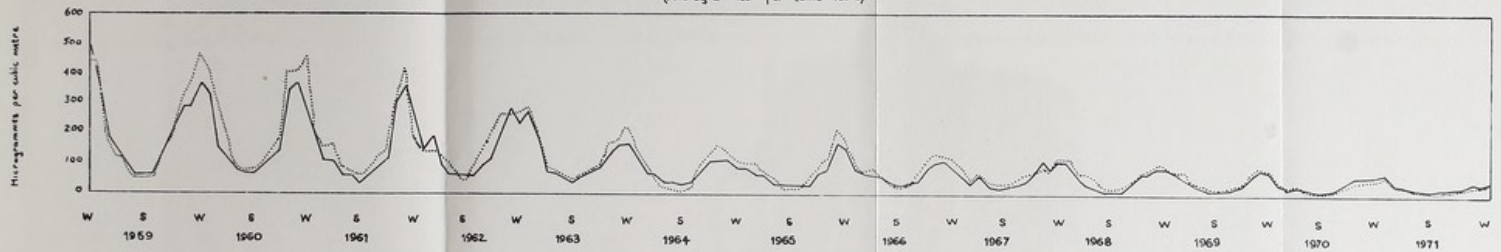
STATIONS			
No.	Name	Site	Instruments
2.	Macalpine	West King's Cross Hospital, Macalpine Road.	Deposit Gauge and Lead Peroxide Instrument.
3.	Clelington	Maryfield Hospital, Mains Loan.	do.
5.	Mayfield	Mayfield Hostel, 169 Arbroath Road.	do.
7.	Constitution	Constitution Road Clinic, 55 Constitution Road.	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.

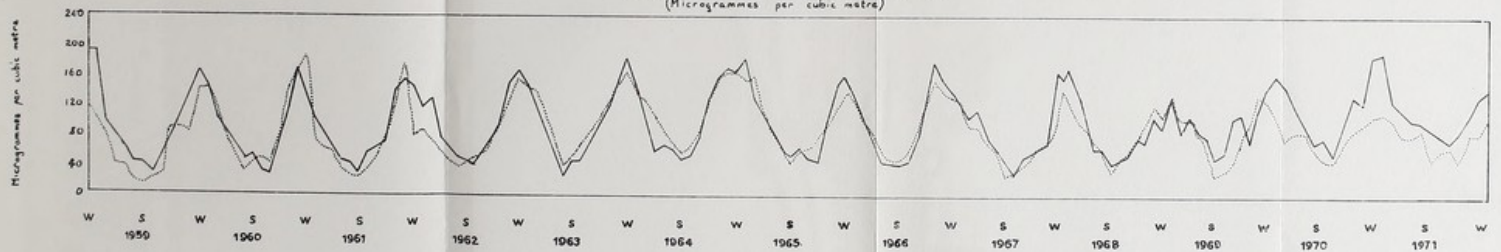
A total of 218 visits were made during the year for the purposes of supervision and the changing over of equipment, etc. at existing stations and in connection with the setting up of the five new stations referred to later.

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

AVERAGE DAILY MEAN SMOKE CONCENTRATION
(Microgrammes per cubic metre)



AVERAGE DAILY MEAN SO₂ CONCENTRATION
(Microgrammes per cubic metre)



S SUMMER

W WINTER

Solid line: STATION No 6 'CAIRD' (January 1959 to March 1967) and
STATION No 11 'COMMERCIAL' (April 1967 onwards)

Dotted line: STATION No 7 'CONSTITUTION'

Deposit Gauges and Lead Peroxide Instruments

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

Station	Deposit Gauges Average Monthly Total Solid Deposit (Tons/sq. Mile)	Lead Peroxide Instruments
		Daily Average Concentrations of Sulphur Dioxide in Arbitrary units (milligrammes of SO ₂ per 100 sq. centimetres per day)
No. 2 " Macalpine "	10.72	0.73
No. 3 " Clepington "	8.65	0.82
No. 5 " Mayfield "	8.80	0.56
No. 8 " Balgay "	6.41	0.56
No. 10 " Craigie "	7.20	0.56

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
8.36	173	100.32	2,076

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 Concentra- tion 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
1972	8.36	173	0.65

Whereas the average solid deposit recorded at Stations Nos. 2, 3, 5, 8 and 10 was encouragingly less than that during 1971, the mean daily average concentration of sulphur dioxide was appreciably higher. Although it may appear to be paradoxical that whereas the average monthly deposit per sq. mile was less than that during 1971, the deposit over the City as a whole — calculated on the basis of the average deposit per sq. mile and the acreage of the City — was actually greater, but this is accounted for by the increase in the acreage of the City from 12,294 to 13,215 occasioned by the extension of the western boundary and the considerable land reclamation achieved at Riverside.

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	6	72	34	39	223	153
February	6	78	35	66	259	163
March	9	120	36	61	296	146
April	7	35	30	45	149	90
May	10	34	20	35	151	92
June	5	24	13	23	147	76
July	5	20	12	17	151	67
August	4	18	11	28	103	55
September	9	62	25	24	119	73
October	11	112	46	49	207	105
November	11	65	42	72	193	100
December	20	175	75	77	291	141
During the Year	4	175	32	17	296	103

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	4	57	24	14	244	99
February	4	102	46	14	240	130
March	12	103	36	60	233	125
April	10	46	23	31	156	103
May	5	36	21	48	159	85
June	5	29	17	38	161	80
July	5	30	13	7	172	68
August	7	42	16	29	141	73
September	9	92	33	29	156	79
October	16	177	59	52	181	109
November	25	83	51	66	174	112
December	16	227	86	68	226	125
During the Year	4	227	35	7	244	99

Comparisons of the average results obtained during 1972 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
1972	4	227	33	7	291	101

The average smoke concentration recorded at these Stations was, although a trifle higher than during 1971, less than one-sixth of the average recorded during 1959 when measurement with this type of apparatus began. The average sulphur dioxide concentration was practically similar to that recorded during the previous two years.

The graphs shown later 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.

As forecast in my report for 1971, operation of the deposit gauges and lead peroxide instruments at Stations Nos. 2, 3, 5, 8 and 10 and the volumetric apparatus at Station No. 7 was terminated at the end of 1972, and as from 1st January, 1973, five new stations each with a daily smoke filter and sulphur dioxide (volumetric) apparatus became functional at the following educational establishments :— Menzieshill High School, Lawside Academy, Craigie High School, Grove Academy and Seymour Lodge. These new stations, together with Station No. 11 "Commercial", which has been retained, provide six points of measurement carefully selected to provide results representative of conditions over the City as a whole and the results will, of course, continue to be forwarded to Warren Spring Laboratory to be included in the National Survey.

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	38	65	19
Contraventions discovered by staff during routine inspections	16	5	6
Total complaints/contraventions	54	70	25
Matters remedied by end of year	43	62	25
No action necessary after investigation	6	5	—

Some 577 visits, including 32 to industrial and other large boiler plants, were made by the inspectorate in connection therewith. In addition, 43 official "observations" were carried out on chimneys serving boiler units to ascertain if the smoke emitted kept within, or exceeded, the limits laid down in the Dark Smoke (Permitted Periods) (Scotland) Regulations, 1958.

Statutory Notices issued in connection with contraventions under this heading totalled 4 — two in respect of contraventions of Section 1 of the 1956 Act, one concerning a contravention of Section 16 of the same Act and another in respect of a contravention of Section 1 of the 1968 Act. Other matters were resolved by written or verbal warnings. In a number of cases, as will be obvious from the foregoing statistics relating to matters involving contraventions of Sections 1 and 16 of the 1956 Act, the requisite remedies had not been attained by the end of the year.

Trouble was experienced at various times during the year, and quite a number of complaints were received from the public, regarding emissions from the chimneys serving Stations "A" and "B" at the North of Scotland Hydro-Electric Board Generating Station at Carolina Port. Complaints of this nature, however, have to be referred to the Alkali Works Inspectorate (now H.M. Industrial Pollution Inspectorate for Scotland), Scottish Development Department, because the Generating Station is in the category of a registered work in terms of the Alkali,

etc. Works Regulation (Scotland) Acts, 1906 and 1951 and is therefore outwith the control of the Local Authority.

A nuisance problem which related to occasional emission of smoke from the low-level chimney which served solid fuel burning sectional boilers at a large store in the centre of the City was permanently solved when the units in question were replaced by a gas-fired boiler. No longer does smoke issue from the chimney and cause annoyance to the occupiers of office premises immediately adjacent.

A matter which was the subject of vehement complaint early in the year was the deposit from the atmosphere of unburnt coke particles on to a roadway and over parked cars in the central area of the City. Investigation revealed that in the absence of adequate coal supplies due to industrial action by the miners, coke fuel — "Sunbrite" — was being burned temporarily in two boilers equipped with under-feed stokers with the result that considerable quantities of fine coke particles were exhausted to the atmosphere. The nuisance ceased, of course, when coal supplies returned to normal.

The commissioning of new boiler units at a large factory and the occasional dark/black smoke emission which occurred gave rise to several complaints, but the matter was resolved once the requisite tests and adjustments to the operational controls had been made. Teething troubles, in other words.

As in previous years, complaints received and dealt with related in a number of cases to the burning of garden refuse which many gardeners seem to deem a seasonal and environmental hazard which ought to be accepted. When one considers that for a nominal charge a bag will be supplied by the Cleansing Department and the filled bag thereafter collected and disposed of by them, it is most unreasonable and inconsiderate to adopt this garden bonfire practice in built-up areas. In Dundee, garden refuse, as well as other refuse, is also accepted and disposed of free of charge if it is taken to either the Marchbanks or Foundry Lane Cleansing Depots.

Section 3 of the 1956 Act. 178 notifications of "proposal to install" new furnace boiler units were made to the department. In connection therewith, and in respect of a number of similar notifications received during 1971, a total of 268 visits were paid by the inspectors to the premises involved.

The following table gives statistical details of major furnace/boiler installations and adaptations to existing units completed during the year under review :—

Nature of Premises				Type of Fuel	Type of Stoker, Burner, etc.	Remarks
Factories	Shops, Offices, etc.	Other Premises				
				Solid Fuel	Oil	Gas
				Adaptations, etc. to Existing Boiler Plants		
				New Furnace/Boiler Installs.		
11	6	63	93	—	39	54
6	1	6	19	—	11	8
—	—	65	65	—	25	40
1	—	—	—	1	1	—
18	7	134	177	1	76	102

Installations completed at new and reconstructed Corporation premises included oil-fired boilers at Lochee Primary School, Lochee Day Nursery and the Transport Depot, East Dock Street, and gas-fired units at Mill of Mains Primary School and Foggyley Nursery School. The solid fuel boilers at Grove Academy Annexe and the solid fuel domestic boilers at Morgan Academy and St. Joseph's Primary School were replaced by oil-fired units, while the solid fuel boilers at St. Mary's Primary School, Lochee, were replaced by gas-fired units. All the oil-fired units referred to were equipped to burn 35 seconds oil (Redwood No. 1) which has a very low sulphur content.

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	
1957-1972 inclusive	287	135	776	1,431	—	139	765	527	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. 16 applications were received by the department during 1972 requesting formal approval of chimney heights in terms of this Section — 15 of these related to chimneys serving boilers burning liquid (oil) fuel and one concerned the exhaust flue of a gas-fired boiler, all units with ratings of 1.25×10^6 or more B.T.U's. per hour.

Approval, without conditions, was granted in all 16 cases, although in some instances this was only done after due consultation with the architects, heating consultants, etc., visits to the sites concerned, and some adjustments to proposals.

A total of 56 visits were made under this heading either in the course of site investigation in connection with the above-mentioned applications or for the purpose of inspecting chimneys erected during 1972 which were previously the subject of application for approval.

Two further applications received during the period under review related to chimneys to serve plant at a registered works in terms of the Alklai etc. Works Regulation (Scotland) Acts, 1906 and 1951, but in view of the category of the premises and the fact that the Clean Air Acts do not apply thereto, the applications were referred to H.M. Industrial Pollution Inspectorate for Scotland as the responsible authority.

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.30 of the Building Standards (Scotland) (Consolidation) Regulations, 1971, applies.

Sections 11-15 of the 1956 Act — Smoke Control Areas. A total of 21,627 visits were made during the year to houses and other premises within established or proposed Smoke Control Areas, either during survey or for the purpose of supervising or inspecting the alteration or replacement of fireplaces, etc. The department was also called upon to deal with 34 complaints from householders concerning such matters as defective fireplaces, faulty appliances and operational difficulties.

In the course of patrol duties, either routine or as a follow-up to complaints or reports received concerning smoke emissions from dwellinghouse chimneys in Smoke Control Areas, 69 contraventions of Section 11 were discovered. As a result, 31 Statutory Notices were issued and 38 verbal warnings given. No prosecutions were instituted, however.

Phased Programme. The Twelfth Order — The Dundee (Fintry) Smoke Control Area Order, 1971 — became effective on 1st October, 1972, while the Thirteenth Order — The Dundee (Douglas) Smoke Control Area Order, 1972 — is due to come into operation on 1st October, 1973. With both these Orders in force some 7,729 acres, 44,149 dwellings and 2,191 other premises in the City will have been brought under the control of Smoke Control Area legislation.

Since the end of the year yet another Order has been confirmed by the Secretary of State. This, the Dundee (Broughty West) Smoke Control Area Order, 1973, is due to come into operation on 1st October, 1974, and covers the area bounded on the north by Arbroath Road (from Strips of Craigie Road to Balgillo Road East); on the east by Balgillo Road East, Balgillo Road, Forthill Road, Fort Street, King Street and Church Street; on the south by the foreshore; and on the west by part of Broughty Ferry Road (from its junction with Stanner-gate Road) and Strips of Craigie Road.

The following table gives details of the twelve Smoke Control Areas whose Orders were in operation at the end of 1972, with similar information concerning the Douglas and Broughty West Areas :—

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	—	161	2,810	50
Glamis Road	1/4/61	590	1	—	1,064	1,065	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	4,535	—	14	4,549	32
West End	1/10/63	524	710	—	2,184	2,894	396
Downfield West	1/10/65	1,282	5,236	96	925	6,257	241
Lochee	1/10/66	552	2,993	124	629	3,746	452
Coldside	1/10/67	365	2,442	—	1,258	3,700	216
Law	1/10/68	207	378	—	2,917	3,295	232
Downfield East	1/1/72	1,094	3,407	120	1,281	4,808	175
Fintry	1/10/72	465	911	2,680	3	3,594	69
Douglas	1/10/73	622	3,492	6	335	3,833	79
Broughty West	1/10/74	719	559	—	2,131	2,690	241

* 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 Order.

Section 9 of the 1968 Act — Acquisition and Sale of Unauthorised Fuel in Smoke Control Areas. In a few instances, the occupiers of houses in Smoke Control Areas who were caught emitting smoke from their chimneys due to the illegal burning of bituminous coal revealed the names of their fuel suppliers. In all these cases, the coal merchants concerned were served with a Notice and warned that any future offences would almost certainly be reported to the Procurator Fiscal. The householders' reticence to divulge the suppliers' names and a misguided loyalty to the coal merchants' employees prevented further action being taken by the department, apart, of course, from severe warnings being given to the householders concerning the offence they themselves had committed under the legislation.

New Clean Air Legislation

The Smoke Control Areas (Authorised Fuel) (Scotland) Regulations, 1972, came into operation on 1st August, 1972, and thereby added "Durafyre" ovoids to the list of authorised fuels. This fuel is designed for use essentially in closed appliances rather than open fires.

The following Orders, affording conditional exemption from the provisions of Section 11 of the 1956 Act in respect of two coal-burning units, were also introduced during the year :—

The Smoke Control Areas (Exempted Fireplaces) (Scotland) Order, 1972, which came into force on 17th May, 1972, and afforded such exemption to the Parkray Coalmaster — a room heater with high output back boiler manufactured by Radiation Parkray Ltd.; and the Smoke Control Areas (Exempted Fireplaces) (Scotland) No. 2 Order, 1972, which became operational from 7th August, 1972, and provided for similar exemption to the Trianco TGB 17 — an independent gravity-fed domestic central heating boiler produced by Trianco Ltd.

The conditions of exemption applicable to both units are that they must be properly installed, maintained and operated so as to minimise the emission of smoke and only burn selected washed coal singles.

Factories Act, 1961

The following table details the numbers and types of factories on the register at the end of 1972 :—

TRADE or BUSINESS	Mechanical Non-Mechanical	
	Factories	Factories
Blacksmiths, etc.	5	—
Boot Repairers, Saddlers, etc.	12	—
Building and Associated Trades	63	3
Coal, Firewood and Timber Merchants	8	—
Dental Mechanics, etc.	19	—
Dress and Mantle Makers, Furriers, Milliners, etc.	14	1
Engineering (Light and Heavy)	87	—
Engineers (Electrical, Radio and T.V., etc.)	29	—
Engineers (Motor Vehicle Repairs, etc.)	139	—
Food Manufacturers, Packers and Canners, Bottlers, etc.	80	—
Launderers, Dyers and Dry Cleaners	25	—
Musical Instrument and Sports Equipment Repairs	4	1
Photographers and Picture Framers	5	1
Printers, Ticket Writers, etc.	30	—
Tailors	11	—
Textile Spinners, Weavers and Calendriers	66	—
Upholsterers, Cabinetmakers, etc.	26	—
Waste, Rag and Metal Merchants	12	1
Watch and Jewellery Repairers, Opticians, etc.	5	—
Miscellaneous, including Outworkers, Sites of Building Operations, etc.	62	5
	702	12

In discharge of the Local Authority's duties under this Act, the inspectorate paid 731 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.

In addition, 54 visits were made to other premises to which Section 7 of the Act applies, such as sites of building operations, etc.

Details of the inspections carried out and contraventions discovered and remedied during the year are given in the following tables, providing the prescribed information which, by virtue of Section 153(1) of the Act, must be given to the Central Authority.

**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	12	5	1	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority ...	662	726	17	—
(iii) Other Premises in which Section 7 is enforced by the Local Authority (including out-workers' premises) ...	40	54	1	—
TOTAL	714	785	19	—

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 ...	52	48	—	6	—
(c) Not separate for sexes ...	—	—	—	—	—
Other offences against the Act (not including offences relating to out-work)	4	4	—	—	—
TOTAL	56	52	—	6	—

Part VIII of the Act

Outworkers (Sections 133 and 134)

Numbers 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

Deposit of Poisonous Waste Act, 1972

As a result of the progressively extensive and indiscriminate dumping of poisonous waste, the growing awareness of the need for statutory control over the disposal of toxic and polluting materials and the nationwide publicity given to the pollution of our environment, this very important and necessary piece of legislation was introduced and received the Royal Assent on 30th March, 1972.

The Act has two main features :—

1. As from 30th March, 1972, it became an offence, punishable by heavy penalties, to deposit on land any poisonous, noxious or polluting waste in circumstances in which it can give rise to an environmental hazard — that is to say, in circumstances in which it might cause danger to persons or animals or might pollute any water supply.

The maximum penalty for such an offence is :—

- (a) on summary conviction, a fine of not more than £400 or six months' imprisonment or both, and
- (b) on conviction on indictment, imprisonment for not more than five years, or a fine, or both.

2. On 3rd August, 1972, a notification procedure was introduced whereby those concerned, i.e. manufacturers, processors, etc. who are disposing of poisonous, noxious or polluting materials, are required to give local authorities and river purification boards notification as to the nature and quantities of such wastes arising or being deposited in their areas.

The maximum penalty on summary conviction for failing to give, or making a false statement in, the required notice about removal or deposit on a tip of noxious waste, is £400.

The notification procedure requires that :—

- (a) The manufacturer, processor, etc. who is discarding noxious waste should send notices, giving details of the quantity and composition of the waste, to the local authority (in Scotland the county council or town council) and the river purification board in whose area his premises are situated and, if the refuse tip or land on which the waste is to be deposited is located in another local authority area, also to that local authority and the river purification board for that area. These notices must be given at least three clear days (not counting Saturday or Sunday as a day) before the waste is removed from the premises concerned. Responsibility for ensuring receipt three clear days before the date of removal of waste rests on the person giving the notice.

Although not a statutory requirement, it is recommended and will assist a tip operator if the manufacturer, etc. sends to him a copy of the aforementioned notice so that he receives it three clear days before the waste is delivered to him (see paragraph (b) below).

The manufacturer, etc. should also give a copy of the notice to "the person who is to undertake the removal", that is the driver who undertakes the removal or if he is an employee of a haulage firm or tip operator, his employer. In the latter situation it helps materially if a copy of the notice is given to the driver as well as the employer so that the tip operator may match it with the copy of any notice he has received direct.

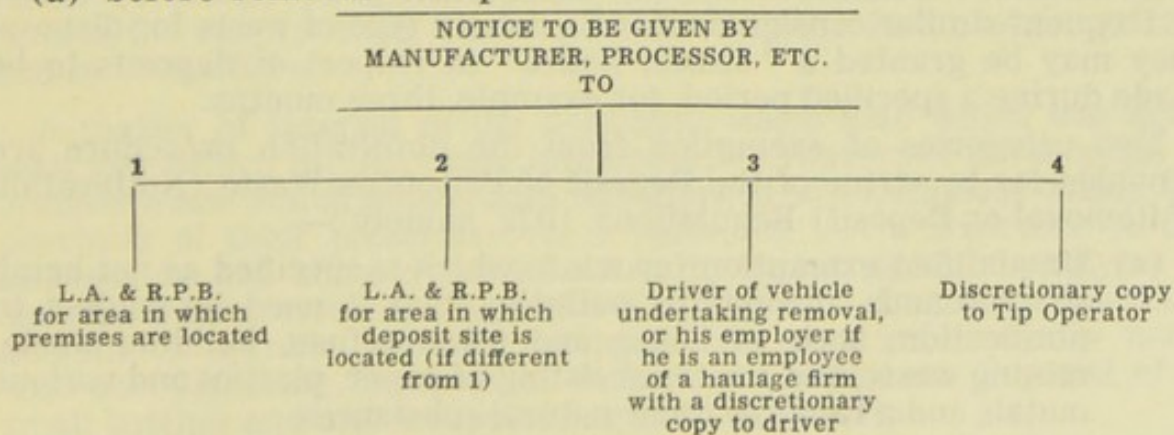
- (b) The operator of a commercial tip who has not received a copy of the aforementioned notification giving the requisite three days' notice concerning the removal and deposit of noxious waste, should himself send a notice giving the required information at least three clear days before the waste is deposited to the local authority and the river purification board for the area within which the tip is located.
- (c) The operator of a commercial tip should, within three days from the deposit of the waste on his refuse tip, send a notice giving specific details thereof to the local authority and the river purification board in whose area the tip is located. If he received a copy of the notice of removal referred to in paragraph (a) above, the operator should also similarly notify the local authority and river purification board for the area in which are situated the premises from which the waste was removed.
- (d) Local authorities operating a tip must, within three days, notify the river purification board for the area in which the tip is situated of any deposit of notifiable waste thereat.

The somewhat complex notification procedure is indicated below in a form which it is hoped will be of interest and assistance to those concerned :—

Notices to be given under the Act relative to the removal or deposit of notifiable waste :—

Section 3(1) — Notification providing three days' prior notice of removal or deposit of such waste to be given by manufacturer, processor, etc. as follows :—

(a) before removal or deposit



- (b) before deposit (but only if discretionary copy is **not** given to tip operator [ref. (a)4 above])

NOTICE TO BE GIVEN BY
OPERATOR OF COMMERCIAL TIP
TO

L.A. & R.P.B.
FOR AREA IN WHICH
DEPOSIT SITE IS LOCATED

Section 4(2) — Notification to be given within three days after deposit by commercial tip operator :—

(c)

NOTICE TO BE GIVEN BY
OPERATOR OF COMMERCIAL TIP
TO

1
L.A. & R.P.B.
for area in which
deposit site is located

2*
L.A. & R.P.B.
for area where premises
from which waste was removed
are situated

* Only required if commercial tip operator received discretionary copy of notice under Section 3(1) from the manufacturer, processor, etc. (Ref. (a)4 above)

Section 5(3) — Notification to be given by local authority within three days after deposit at a local authority tip :—

(d)

NOTICE TO BE GIVEN BY
LOCAL AUTHORITY
TO

R.P.B.
(FOR DISPOSAL SITE)

L.A. — LOCAL AUTHORITY

R.P.B. — RIVER PURIFICATION BOARD

In cases where manufacturers or other waste producers have regular or frequent similar consignments of a certain type of waste for disposal they may be granted a "season ticket" in respect of deposits to be made during a specified period, for example, three months.

Two categories of exemption from the notification procedure are provided for by virtue of the Deposit of Poisonous Waste (Notification of Removal or Deposit) Regulations, 1972, namely :—

- (a) Unqualified exemption for waste which is specified as not being so poisonous, noxious or polluting that it need be subject to notification, such as house and trade refuse, building waste, mining waste, and waste consisting of paper, plastics and various metals and a range of other natural substances.

- (b) Qualified exemption for waste of a prescribed description which is deposited in a prescribed manner or in prescribed circumstances such as farm chemicals, radioactive waste, waste deposited in circumstances of emergency and waste deposited pursuant to certain types of statutory authority.

The Corporation decided that this department should be made responsible for carrying out the functions of the Local Authority under the Act, including, *inter alia*, the control and operation of the notification procedure, the keeping of records of the deposit of notifiable waste in the Dundee area, and so on.

In an effort to publicise the requirements of the new legislation, a Public Notice was placed in the local press and circular letters were sent out to certain industrialists and others believed to have notifiable waste for disposal. In this and other ways, compliance with the requirements of the new legislation was eventually attained and between 3rd August, when the notification procedure came into operation, and the end of the year, 42 notifications were received from firms within the City in respect of the deposit of notifiable waste, the vast majority of which was deposited outwith Dundee. Only a very small amount was dumped at Riverside Tip. Cyanide waste from one factory was collected by Imperial Chemical Industries Ltd. for disposal at sea.

It has to be recorded, however, that certain disposal sites in the Counties of Angus and Fife have now ceased to be available for the deposit of particular notifiable wastes arising from the Dundee area, and unless adequate and suitable alternative means of disposal become available shortly a local problem could arise in the not too distant future.

A special problem which has arisen is the disposal of waste oil from garages, etc., but in this area the position has been helped to some extent by the Dundee Northern Hospital Board's Engineer, who has established a waste oil collection service from a variety of premises in the Dundee, Angus, Perth and Fife areas and, as supplies permit, has been using this oil to operate the boilers at one of the Board's local hospitals.

In addition, a disposal service is now available at various Cleansing Department Depots throughout the Cities, where waste oil may be taken by transport operators and private motorists in an effort to reduce the surreptitious discharge of waste oil into drainage systems and so to the River.

A matter of interest in the poisonous waste field which was dealt with just before the Act came into operation concerned the disposal of cyanide waste which a local firm had allowed to accumulate within the precincts of their premises over a period of years. Exposure to the atmosphere had allowed the substance to "weather" and analyses of samples taken revealed only a 0.1% NaCN content. In view of the small amount of cyanide present, arrangements were subsequently made with the Cleansing Department to have the substance disposed of in small batches and under supervision at Riverside Tip.

Noise Abatement Act, 1960

Complaints and matters dealt with concerning nuisance and annoyance from noise and vibration totalled 52. In dealing with these some 282 visits by the inspectorate were necessary and this serves to illustrate how prolonged and complex investigations of this category of complaint can be on occasion. As usual, quite a number of these visits had to be made outwith normal working hours, such as in the late evening or the early morning, when the noise complained of became increasingly evident and disturbing due to the lowered ambient 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	35	9	8
Abated	37*	9	8

* Includes matters under investigation towards the end of 1971 and remedied during 1972.

As in previous years, the sources of the trouble were quite varied and the following are perhaps worthy of comment.

In the report for 1971 reference was made to complaints regarding the noise produced by a fibre transportation system at a factory and the remedial action taken which achieved a 12 decibel reduction in the sound level readings taken at a point outside the complainer's house immediately adjacent to the factory. A further development can now be reported in that during the course of an extension to the premises the fan unit and trunking nearest the complainer's dwelling were re-sited within the factory, thereby achieving a further reduction in the sound pressure level.

The noise of production machinery at another factory was the subject of complaints by occupiers of tenemental dwellings directly opposite. Although the factory was a long established one, the new occupier of one of the houses found the noise particularly annoying. Investigation revealed that the disturbance arising from the machinery was accentuated by the fact that certain windows and the door of a loading bay immediately opposite the tenement were often kept open. Representations were made to the firm concerned and as adequate alternative ventilation was available, arrangements have now been made to keep the windows in question closed. In addition, the loading bay door is now opened only when required to permit loading and unloading operations. A considerable noise level reduction has thus been achieved.

The noise caused by the discharge of exhaust steam from the boiler plant of a large new factory during the commissioning and pressure test period produced numerous complaints from persons residing in the neighbourhood who naturally found the occasional discharge of steam in the course of the night hours somewhat disturbing. The engineer-in-charge was contacted and gave an assurance that no further discharge of steam would take place during the night and confirmed that the test period would be of short duration. The complainers, on being so informed, accepted the fact that a certain degree of noise was inevitable in the circumstances and appreciated the cessation of disturbance during the night hours.

The occupiers of a range of tenement property complained about a "droning" sound emanating from a nearby factory which occurred intermittently and became more evident during the quiet hours of late evening and early morning. The trouble was traced to an oil-fired boiler plant recently installed. The firm called upon the services of the University Occupational Hygiene Unit and the cause was subsequently pin-pointed to an excessive turbulence/vibration in the air-injection system to the oil burner. Re-alignment of the air-injection jets solved the problem.

Noise and vibration resulting from the siting of compressor/refrigerator units on concrete floors without any means of insulation at two different commercial premises were the subjects of complaint. In one case, the units were located in a newly established frozen food distribution depot below flat-dwellings occupied by the complainers. The other concerned equipment serving refrigerated counter/display units at a large supermarket in close proximity to a tenemental building where the complainers resided. The firms concerned were contacted and co-operated by having the units re-mounted on suitable anti-vibration pads so that the disturbance, which had been particularly acute during the night hours, was terminated.

Noise arising from the refrigeration equipment of a cold store of another supermarket also resulted in complaints. The trouble was found to be largely due to the extremely close proximity of the cold store to the complainers' dwellings. Stringent sound-proofing measures were applied both to the component parts of the refrigeration unit and the cold store structure itself and this achieved an 8 dBA reduction in the level of noise emitted. A satisfactory solution to the problem.

Disturbance arising from the clatter of utensils and other operations in a bakehouse during the early hours of the morning motivated a

complaint from the occupier of a dwelling immediately adjacent to a window of the bakehouse. The matter was resolved when the bakery owners co-operated by installing mechanical means of ventilation so that the window can now be kept closed.

The noise from equipment engaged in test-boring operations at a development site was the subject of complaints from the occupiers of a nearby office building. Investigations brought to light the apparent cause of the trouble — the absence of a silencer on the diesel engine which was providing the power. The firm was contacted immediately and operations ceased until a silencer was fitted.

The last mentioned case is a classic example of nuisance which need not occur if equipment is properly serviced and maintained and is inexcusable. The same is true of the use of pneumatic drills which are not fitted with "mufflers".

The awareness of noise nuisance potential relative to operations at building sites was emphasised by the issue of a circular by the Central Authority (S.D.D. Circular No. 143/1972), together with a revised version of the Ministry of Public Buildings and Works Advisory Leaflet No. 72 "Noise Control on Building Sites". The circular indicates that local authorities should, where appropriate, include in their specifications for building and civil engineering work a clause requiring that silencers should be fitted to compressor units and pneumatic drills equipped with mufflers. It also refers to the need for the provision of acoustic screens in connection with the use of compressors and drills in certain circumstances — e.g. for work near a hospital or school. Leaflet No. 72 provides valuable information on the subject of noise reduction and lists a variety of remedial measures applicable to specific sources of noise.

Another complaint dealt with concerned early morning noise from the revving-up and departure of a large road transport vehicle in a quiet residential cul-de-sac within which the driver parked the transporter several evenings per week. The vehicle is now kept overnight in the yard of a nearby transport depot much to the relief of the complainers.

Matters under the "Domestic" heading included a case where the occupier of a flatted dwelling — a night-shift worker — complained of disturbance from the house above where an in-coming tenant was in process of carpet-laying. A little reasonableness on the part of the

complainer might have been better since the cause for annoyance lasted only for a very short time.

Applications for planning permission in terms of Town and Country Planning legislation continue to be vetted by this department, cases which in our opinion involve a noise nuisance potential being 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

Legislation for dealing with food unfit for human consumption is available under the Food and Drugs (Scotland) Act, 1956, which, inter alia, empowers authorised officers of local authorities to examine and seize food intended for human consumption which is unfit and has been sold or is offered or exposed for sale, etc.

Despite the satisfactory high standards of food production and distribution techniques in existence today, there is, nevertheless, an ever present possibility that foodstuffs may become contaminated or damaged in transit, have deteriorated in storage or be imperfect in some way to the extent of being considered unfit.

The consumer public in Dundee has been protected in great measure over a number of years from the possibility of being supplied with unsound food by a system of inspection whereby food traders can call on the services of this department to examine suspect food and thereafter voluntarily surrender it for supervised destruction if it is found to be unsound. A certificate of unfitness is issued in respect of food so dealt with.

Wholesalers, retailers, caterers, etc. again co-operated with the department during the year and in response to 303 requests for examination of foodstuffs, 2,339 certificates of unsoundness were issued in relation thereto. Details of the articles dealt with and the quantities disposed of, under the supervision of the inspectorate and by arrangement with the Cleansing Department, are given in the following table.

ARTICLES OF FOOD SURRENDERED

ARTICLES				Where Sur- rendered	Tons	Cwts.	Qrs.	Lbs.	Reasons for Sur- render
Bananas	Shops, Wholesale Stores, Caterers, etc.	11	7	3	16	Decomposition, Contamination, Damage to Containers, etc.
Beef	...	...	...		—	17	2	14
Beef (Tinned)	...	...	...		4	8	1	9
Butter	...	...	...		—	17	2	20
Cereals	...	...	...		—	2	3	19
Cheese	...	...	...		—	6	3	25
Chicken	...	...	...		1	16	3	26
Confectionery	...	...	...		—	8	—	15
Fish	...	...	...		1	10	3	18
Flour	...	...	...		3	17	1	4
Fruit	...	...	...		—	18	3	6
Fruit, etc. Juices (Tinned)	...	...	...		3	8	3	11
Ham	...	...	...		3	8	2	23
Ice Cream	...	...	...		—	9	2	17
Jam, Syrup, etc.	...	...	...		—	3	3	8
Pork	...	...	...		—	2	2	17
Pork (Tinned)	...	...	...		3	4	1	27
Rice	...	...	...		—	9	2	15
Soup (Tinned)	...	...	...		3	9	—	9
Tomatoes	...	...	...		2	1	1	8
Tongue (Tinned)	...	...	...		1	4	2	8
Vegetables (Tinned)	...	...	...		3	10	2	22
Miscellaneous	...	...	...		—	6	2	4
Total		48	13	2	5	

There was no great change in the types of food dealt with during the year but the quantity increased considerably. One factor accounting for this was the unusually large amount of bananas surrendered for destruction due to either damage in transit and overheating, or chilling in transit in consequence of which they would not ripen and were thus considered unsuitable for sale.

Other fruits destroyed included cherries affected with mould growth, over-ripe pears and tomatoes affected with "black rot".

As in past years, much of the food surrendered and destroyed was canned produce.

The discovery of food being stored in a ground floor room of a tenement building in a redevelopment area gave cause for concern. The storage premises were unsuitable and vermin infestation was evident. The owner of the food was traced and found to be occupying a grocer's shop nearby. The entire stock, which mainly consisted of chapatti flour, was surrendered and destroyed under supervision. It was decided to issue a severe warning to the offender, but there was a strong temptation to report the circumstances to the Procurator Fiscal.

Fire damage resulted in the supervised destruction of nearly 5 tons of food which was removed from a large grocery shop, commodities affected including 3,000 eggs, 18 cwts. of flour and 119 lbs. of sugar — what could have been the biggest 'sponge' ever baked!!

The number of breakdowns of deep freeze cabinets and refrigerators in food premises more than doubled compared with the figure for 1971, a total of 67 such breakdowns being recorded. Failures were caused by mechanical and electrical faults, gas leakages, defective fans, motors, etc. and it was noticeable that in several instances refrigerators which had been serviced and repaired by engineers broke down again at least once within a few days. This matter was taken up with those servicing the units but they insisted that the breakdowns were due to faults which could arise at any time and could not be prevented. The point, of course, is of extreme importance because every such breakdown leads, almost invariably, to the surrender and destruction of the thawed out contents of the unit.

The continuing advances in food technology, the enormous increases in mechanisation and processing, and the care exercised by manufacturers, wholesalers and retailers, did not, of course, eliminate entirely the need for the general public to complain to the department about foodstuffs for a variety of reasons.

Every such complaint was, as usual, routinely investigated by taking statements from witnesses; inspecting the food, the premises and the equipment of involved retailers, wholesalers and/or manufacturers; examining invoices, etc; corresponding with involved firms; and submitting samples to the bacteriological laboratory and/or the laboratory of the Public Analyst for examination or analyses. In most cases the visits demanded the services of two inspectors for corroboration purposes since certain cases eventually reach the Courts.

During the year, 156 complaints (representing an increase of almost 10% on last year's figure) were investigated, resulting in some 560 visits having to be made by the inspectorate in the subsequent investigative procedures.

Although the sale of food unfit for human consumption is a serious legal offence, 142 cases could not be reported to the Procurator Fiscal for the reasons detailed below :—

Unfounded complaints, i.e. not corroborated by the Analyst's report, etc. ...	31
Insufficient evidence—no witness to purchase, etc.	41
Complaints made where no article was submitted in evidence	20
Delay in bringing complaint to Sanitary Department	6
Complaints where Analyst's reports, etc., showed that the foreign object complained of was in some way associated with the article of food, e.g. starch and vegetable oil in crisps (2), food colour in morning roll and worm in cod head. (Firms, etc. were notified and 3 warnings given) ...	5
Complaints where a warning was considered sufficient after investigation showed that every reasonable precaution had been taken by the seller—e.g. dirty milk bottles, etc.	39

The remaining 14 cases, however, were all reported to the Procurator Fiscal and the results thereof are categorised below :—

Offenders brought to Court and fined	6
Offender brought to Court and admonished	1
Case deserted in Court by Procurator Fiscal	1
Cases not presented in Court for various reasons	5
Case awaiting trial in Court	1

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

By ignoring the 31 unfounded complaints, the 20 where no article was submitted in evidence and the 6 where there was undue delay in reporting the matter to the department, we are left with a total of 99 complaints which could be considered as being well founded and the following is an indication of the foods involved thereanent and the number of complaints associated with each type.

Food	Number of Complaints	Food	Number of Complaints
Pork, Meat Pies, etc. ...	10	Brought forward	69
Bread	7	Sweets, etc.	3
Milk	7	Eggs	2
Rolls	7	Fish	2
Cakes, etc.	6	Puff Pastry	2
Bacon (uncooked) ...	5	Tinned Spaghetti ...	2
Butter	5	Vinegar	2
Cereals, etc.	5	Miscellaneous	
Soft Drinks, etc. ...	5	(wrong labels) ...	2
Tinned Vegetables ...	5	Corned Beef	1
Potato Crisps	4	Cheese	1
Tinned Fruit	3	Chicken	1
Vegetable Pies, etc. ...	3	Fish Cakes	1

Food	Number of Complaints	Food	Number of Complaints
Brought forward	91	Mince	1
Fruit	1	Steak	1
Fruit Juice	1	Sugar	1
Potted Meat	1	Vegetables	1
Dried Milk	1		
		Total	99

The following indication of the nature and associated number of these complaints may be of interest :—

following :—

Nature of Complaint	Number dealt with
Mould/Fungal/Yeast Growths	25
Foreign Material or Extraneous Substances	25
Insects in or on Food	19
Decomposition/Rancidity/Sourness, etc.	9
Matter Associated with Food (Starch, Vegetable, Colouring Matter)	5
Misdescription (Margarine/Butter Mixture for Butter, Wrong Label, etc.)	5
Dirty Bottles	4
Peculiar Smell/Taste/Appearance	3
Metallic Contamination/Corrosion of Can	2
Adulteration, etc. of Milk, Vinegar	2
TOTAL	99

The Imported Food (Scotland) Regulations, 1968

These Regulations lay down procedures for the examination of imported food by Authorised Officers of local authorities, including port local authorities, and for the submission of samples to the Public Analyst. Their primary purpose is to provide measures for the protection of the public health in relation to imported food in general, and in particular to facilitate modern methods of food transportation in containers whereby these need not be opened and the food examined until the final destination is reached. Containerisation, as it is popularly called, has progressed considerably over the last year or two and an increasing volume of foodstuffs is now being brought overland by vehicles carrying containers which have been landed at ports other than Dundee, where the port local authorities have released them without examination on condition that the container remains sealed until it reaches its final destination. Importers sign an undertaking to this effect.

This, of course, necessitates immediate inspection when the containers reach inland food premises such as carriers' depots, manufacturing premises, wholesale food stores, and so on.

During the year 46 visits were necessary in connection with this legislation and as a result of notification from nine different authorities, food such as flour, fruit juice and pulp, butter and butter oil, canned

fruit, apples, chilled beef, ginger in syrup, and confectionery, was examined at eight different premises within the City.

At no time was it considered necessary to submit samples to the Public Analyst and with the exception of some six bags of flour damaged by water all the food was found to be satisfactory on examination.

Samples of imported food submitted for bacteriological examination and chemical analysis were all in respect of landings at the Dundee Harbour from ships from foreign ports and these are reported on in the section on sampling under the heading "Port Health".

Slaughterhouses, Meat and Cattle Markets
The Food (Preparation and Distribution of Meat) (Scotland)
Regulations, 1963
The Food (Meat Inspection) (Scotland) Regulations, 1961

There are no private slaughterhouses in the City, but the public slaughterhouses, etc. were under the jurisdiction of Mr Andrew Spreull, M.R.C.V.S., the Superintendent of Markets and Slaughterhouses, until his retiral in September, 1972. Since then, in the absence of a Superintendent, this department has carried out some of the work for which he was responsible, particularly in connection with the Food (Preparation and Distribution of Meat) (Scotland) Regulations, 1963, as they apply to the Slaughterhouses.

Statistics relative to the numbers of animals dealt with at the slaughterhouses are given in the following table :—

“	Class of Animal	Slaughtered	No. of Animals		Weight (in lbs.) of Meat Condemned
			Wholly Condemned	Partially Condemned	
	Cattle	15,356	28	2,425	29,661
	Calves	115	3	6	437
	Totals	15,471	31	2,431	30,098
	Sheep	32,231	57	2,030	4,154
	Pigs	15,164	86	1,764	17,018

Because of the age and structure of the slaughterhouse buildings, and the lack of certain equipment and adequate cleaning facilities, it is very difficult to maintain reasonable standards of hygiene. For some considerable time, however, consideration has been given to a modernisation programme but a decision has now been taken to build an entirely new slaughterhouse which, it is intended, will conform to E.E.C. standards. Until this happens, of course, it will be necessary to continue constant vigilance at the existing premises to ensure that the best conditions possible under the circumstances are maintained. To this end, an inspector from this department has been delegated to carry out supervisory responsibilities.

The Food (Meat Inspection) (Scotland) Regulations, 1961, contain provisions for ante mortem and post mortem examinations of animals whose meat is intended for human consumption and this work is

carried out by three suitably qualified Meat Inspectors, together with a Veterinary Meat Inspector employed part-time.

Enforcement of the Food (Preparation and Distribution of Meat) (Scotland) Regulations as they apply to the privately operated wholesale meat markets and places where offals are prepared and processed at the public slaughterhouse is also the responsibility of this department, systematic and regular inspecting being carried out in connection therewith, visits during the year numbering 326 and 78 contraventions being discovered. All of these were abated by the end of the year.

Vehicles used for the transport of meat by road also come within the scope of these Regulations, 113 such examinations being carried out and four contraventions being discovered. These all related to retail butchers' vehicles used for transporting meat from the meat markets to their shops.

One of the contraventions concerned the manager of the butchery section of a large retail store who was warned for not having a suitable shield on his headgear while assisting a van driver to carry meat from his vehicle into the store. The van driver, who was similarly attired, was also warned.

Diseases of Animals Act, 1950 and Orders and Regulations made under this Act

At the end of the year certain additional duties in connection with this Act and the many various Orders and Regulations made under it became the responsibility of this Department on the instructions of the Corporation. Such duties included the issuing of licences for the movement of pigs required by the Regulation of Movement of Swine Order, 1959. These licences provide information of places of origin and destination of pigs, such knowledge being essential in the event of notifiable disease being discovered or attributed to the animals, all with a view to prevention of the spread of disease and its final eradication. Formerly, the Superintendent of Markets and Slaughterhouses was the appointed Local Authority Officer in this connection.

Six such licences were issued in the last two weeks of the year.

Food Sampling

The following table gives comparative information for the last five years concerning the department's sampling activities under the Food and Drugs (Scotland) Act, 1956 :—

Year		Number Purchased or Taken	Genuine	Adulterated	Percentage Adulterated
1968	...	372	341	31	8.63
1969	...	380	332	48	12.63
1970	...	626	580	46	7.35
1971	...	691	603	88	12.74
1972	...	667	609	58	8.70

The total of 667 for 1972 consisted of 187 formal samples — that is to say, taken in accordance with the procedure laid down in the Act — and 480 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
Groceries	36	33	3
Ice Cream	24	24	—
Meat Pies	6	5	1
Milk	3	3	—
Mince	36	27	9
Rum (One Bacardi White)	6	6	—
Sausages	36	32	4
Vodka	2	2	—
Whisky	38	38	—
	<hr/> 187 <hr/>	<hr/> 170 <hr/>	<hr/> 17 <hr/>

II. Informal Samples :—

	Number Purchased or Taken	Certified to be	
		Genuine	Adulterated or Irregular
Beer	14	14	—
Butter and Margarine	5	4	1
Cheese	3	3	—
Chicken Fritters	6	4	2
Coffee	2	2	—
Confectionery	3	3	—
Cream	8	8	—
Curry Powder	4	4	—
Eggs—Pasteurised	6	6	—
Fish Dressing	2	2	—
Fish and Fish Products	4	4	—
Flavouring and Colouring	2	1	1
Flour	3	3	—
Fruit Drinks and Juices	5	5	—
Fruit and Vegetables	35	35	—
Hamburgers	14	13	1
Jams	7	7	—
Meat Pies	7	3	4
Meat and Meat Products	20	20	—
Medicinals	60	60	—
Milk	129	124	5
Milk—Evaporated	2	2	—
Milk—Skimmed	3	2	1
Milk Puddings and Cereals	23	23	—

						Number Purchased or Taken	Certified to be	
							Genuine	Adulterated or Irregular
Brought forward						367	352	15
Mince	...	...	...	...	...	36	20	16
Mincemeat	...	...	...	...	...	2	2	—
Raisins	...	...	...	...	...	3	3	—
Sauces and Vinegars	...	...	...	...	...	8	7	1
Sausages	...	...	...	...	...	36	26	10
Spreads	...	...	...	...	...	7	7	—
Table Jellies	...	...	...	...	...	3	3	—
Vegetables—Tinned	...	...	...	...	...	9	9	—
1 Sample each of the following :—								
Almonds, Mustard, Macaroni,								
Pastry, Salad Cream, Soup, Tea,								
Liver Pate, Tinned Fruit	...	...	...	...	...	9	7	2
						<u>480</u>	<u>436</u>	<u>44</u>

With a population of 181,842 this works out at 3.67 samples for every 1,000 persons, compared with 3.78 for 1971, 3.45 for 1970, 2.09 for 1969 and 2.04 for 1968.

In addition to the above, however, a further 798 food samples (detailed later in the report) were obtained for other purposes, namely 204 for chemical analyses and 594 for bacteriological examination.

The total figure for 1972 is therefore 1,465 which works out at 8.06 per 1,000 of the population.

Formal Samples found to be Adulterated or Irregular

Bread and Butter Slices. Following upon a complaint being received that a restaurant in the City was using margarine instead of butter on slices of bread served with a meal, a formal sample consisting of slices of "bread and butter" served as part of a meal was taken from the same restaurant. The Public Analyst reported that the content of fat scraped from the bread was 74.1% but the butter fat content was only 9.2% and therefore the article was not of the quality or substance demanded. The owner of the restaurant readily agreed that although it stated on his menu "with bread and butter" he used a mixture of margarine and butter on the bread, stating that he did not charge for this in the cost of the meal. After due warning he discontinued the practice and from then on used butter only.

Curry Powder. It was mentioned in last year's report that an informal sample of curry powder, when tested, revealed a zinc content higher than the maximum recommended by the Food Standards Committee. When notified of this the firm concerned immediately began a special monitoring programme for the detection of this metal. A formal sample of the same brand of curry powder was taken during the year under review and analysis showed it to contain 70 parts per million of zinc, which is 20 parts per million in excess of the recommended limit.

Further correspondence with the firm elicited the information that the special checks during 1971 indicated that their trend of results centred around 20-30 parts per million with a range of between 15-45 parts per million, but in view of this department's latest report they had now forwarded six samples from widely spaced production batches to a Public Analyst and would let us know the results as soon as possible. To date, however, these have not been received and a further letter has been sent to the firm.

Evaporated Milk. A sample did not conform to the Condensed Milk (Scotland) Regulations, 1959, in that it was deficient in fat to the extent of 3.3%. The firm thereupon had their portion of the sample analysed and found that it conformed to the standard set by law. The third portion of the sample was subsequently tested by the Public Analyst and this also was found to meet the legal standard. He offered the opinion that the manufacturer, in aiming at the legal minimum, could, on occasion, easily drop below the standard. Further samples were taken but all proved genuine.

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 15.1%, 16.8% and 15.1% 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%. Information concerning this matter was reported to the Procurator Fiscal and this resulted in the manufacturer being fined £15 by the Sheriff after tendering a plea of "Guilty".

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 Products (Scotland) Regulations, 1967".

Informal Samples Found to be Adulterated or Irregular

Butter. A sample was found to contain 0.3% excess moisture and so contravened the Butter (Scotland) Regulations, 1966, which sets the limit at 16%. A formal sample was purchased but this proved to be genuine.

Hamburgers. The Public Analyst reported that a sample did not conform to the Sausage and Other Meat Products (Scotland) Regulations, 1967, in that it was deficient in meat to the extent of 3.75%. A follow-on formal sample was subsequently obtained but this was found to be up to standard.

Mustard. A sample of Continental Mustard was found to contain 0.035% Allyl isothiocyanate. In the view of the Public Analyst, this indicated that the sample was deficient in mustard powder since, in his opinion, the content of this substance should be at least 0.15%. After correspondence with the distributors, the department was informed that the manufacturers held that (a) there is no standard laid down as regards Allyl isothiocyanate, and (b) they are of the opinion that it is

impossible to fix such a standard because of the volatility of the substance, and that (c) Continental Mustard is specially prepared to be mild in flavour compared to English Mustard which is much hotter in taste. There is therefore a difference of opinion between the firm and the Public Analyst which has yet to be resolved.

Chicken Fritters (2 samples); **Lemon Flavouring**; **Dried Low-fat Skimmed Milk**; **Vegetable and Liver Pate**. Details of the results of these samples are reported on under the section dealing with the Labelling of Food Order, 1953, etc.

Mango Chutney. Under the heading "Port Health" and in the section concerning sampling will be found information on this matter.

Meat Pies. Four samples of meat pies did not conform to the Meat Pie and Sausage Roll (Scotland) Regulations, 1967, in that they showed meat content deficiencies varying from 5.0% to 36%. In three instances the irregularity was really a labelling offence because had they been labelled "Scotch Pies" they would have been classed as genuine. In the case of the 5.0% deficiency, however, a formal follow-on sample was taken and this was found to conform.

Milk. Five samples of milk failed to meet the quality standards laid down. Three were samples of Pasteurised Milk, one of which was deficient in fat content, while the other two were deficient in solids-not-fat. Two were samples of Standard Milk, both deficient in non-fatty solids content. In all five cases, however, formal samples subsequently taken proved to be genuine.

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

Other Sampling

In addition to those samples already reported upon which had been procured mainly as a check on compliance with statutory compositional standards, however, there were the usual other samples submitted to the Public Analyst for such purposes as the examination of foodstuffs to determine fitness for human consumption, opinion on the presence of extraneous matter in food, the character of mains water drawn from domestic taps in the City as well as water from private sources of supply, the purity of water in swimming baths (both schools and public), and so on.

A total of 268 such samples were submitted, details concerning which are as follows :—

						Satisfactory	Unsatisfactory
145	Fitness of Food and Drink	...	...	...	...	73	72
49	Mains Water	...	...	...	...	42	7
10	Spring and Wells Water	...	...	...	...	7	3
64	Swimming Baths Water	...	...	...	...	63	1
<hr/>						<hr/>	<hr/>
268						185	83
						<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 :—

Potted hough bought from a branch shop of the manufacturer was handed in at this office under complaint and was considered to be unfit for human consumption. The Public Analyst confirmed this and the manufacturer was brought to Court and fined £10 after pleading "Guilty".

A bottle of orange crush purchased from a street trading vehicle was found to contain a piece of glass. The Public Analyst reported that the glass complained of in the unopened bottle was slightly curved, indicating that it had probably come from a rounded bottle. It was marked with a decorative embossed pattern slightly raised from the surface of the glass, the pattern being of the same type as that observed on the bottle sold to the complainer. In his opinion, therefore, although the piece of glass had not originated from the bottle containing the soft drink it had come from one like it. Having regard to all the circumstances, however, the Procurator Fiscal, in this case, decided against taking proceedings.

A bridie which was the subject of a complaint was found to contain an unidentifiable foreign object. The Public Analyst, after carrying out microscopical examination and chemical analysis, stated that the object was of a copper metal alloy and tests on the meat indicated that the green colour observed thereon was due to dissolution of some of the copper from the alloy metal. Since it was felt that this was ample proof that the piece of metal had been in the bridie during manufacture the baker was named as having been at fault and although he pled "Guilty" in Court he was simply admonished by the Sheriff.

Another baker was brought to Court and fined £25 after he pled "Guilty" to a charge of having sold a morning roll which contained the end of a cigarette with a filter tip. Although the roll was actually purchased from a shop elsewhere the Public Analyst was of the opinion that the cigarette end had found its way into the roll during manufacture.

A morning roll purchased from a large store was found to contain a piece of fabric. The Public Analyst reported that microscopical and chemical tests showed the material to be viscous rayon and he believed that this had found its way into the roll during manufacture. Investigation at the bakery concerned did not reveal how this had happened and the management could not offer an explanation. The firm was fined £10 after pleading "Guilty" in Court.

A portion of a meat pie, accompanied by a piece of string which it was alleged had been found in it, was the subject of a complaint, the purchaser stating that the pie had been sold to her from the branch shop of a large bakery firm. The article was submitted to the Public Analyst who reported that microscopical examination of the string revealed the presence of a number of particles of meat-like substance embedded in the fibres, while chemical examination showed the

presence of a fairly large quantity of fat in the string material, indicating that the string had most probably been cooked in a meat pie. The bakery firm tendered a plea of "Not Guilty" in Court and a date for the trial was fixed. Before this could take place, however, a medical certificate was submitted to the Procurator Fiscal indicating that the principal witness — the complainer — was unfit to attend Court and this was likely to be so for some time. The diet was therefore deserted simpliciter.

A mould growth (reported by the Public Analyst as most probably of the genus *Penicillium*) was found on a sliced loaf of bread which was brought down to this office the day after it was purchased from the shop. Investigation at the places of sale and manufacture indicated that the loaf had been baked some fourteen days before the sale had actually taken place and that the bread was most probably delivered to the shop one day after manufacture. The shopkeeper was obviously to blame but the Procurator Fiscal decided to take no proceedings, probably because of a difficulty in proving sale.

A purchaser noticed holes in the cardboard packet (enclosed in a cellophane wrapper) of fruit and bran "health food" shortly after it had been bought from the shop. The signs were a clear indication of insect infestation. The article was submitted to the Public Analyst who reported that the bran was seen to have caked together to a considerable extent and that an appreciable quantity of webbing could be observed through the bulk as well as a large number of small brown insects, found to be beetles, most probably of the species *Stegobium*. All the insects were obviously dead. During investigation at the place of sale the proprietor stated that he had written to the manufacturer giving code numbers of his stock and that all other packets in his possession had been destroyed. It would appear that the food referred to had been manufactured some two years before the date of sale. The circumstances were such that the shopkeeper was considered at fault and on pleading "Guilty" in the Sheriff Court a fine of £20 was imposed.

On a Saturday, a baker delivered a consignment of meat pies to a cafe in the City. On the next day — Sunday — one of the pies sold that day by the cafe manager was the subject of a complaint by the purchaser that it was affected by mould growth. It was ascertained that the pies had been stored in the cafe premises overnight on boards placed on top of a deep freeze cabinet. All the unsold pies were returned to baker's delivery van driver on the Monday, by which time seven others were seen to be affected with mould growth. The department received the complaint on the Monday, the Public Analyst certified that the article complained of was in fact unfit for human consumption, being affected by mould growth most probably of the genus *Aspergillus*, and a firm of caterers along with the cafe manager was named as being at fault. The Procurator Fiscal, however, eventually decided that he was unable to take proceedings against any party.

A woman purchased a half-pound of bacon from a supermarket. The next day, when her husband was about to cook a portion, it was noticed

that what appeared to be an adhesive dressing had become attached to one of the slices. After receiving no satisfaction from the manager of the supermarkets complaint was made to this department. The Public Analyst certified that the attachment complained of was in fact a piece of waterproof ventilated adhesive plaster stained by blood. The strip of plaster was lying along the edge of the top rasher, fitting the shape of the rasher almost exactly, and was adhering to the fat. In his opinion, therefore, the piece of plaster had been sliced with the bacon and its presence rendered it unfit for human consumption. In the Sheriff Court, the firm pled "Guilty" and was fined £30.

A packeted steak mince pie, the container being code marked, was purchased from a butcher's shop on a Saturday and next day the purchaser noticed a mould growth around the hole in the centre of the pie. The department received the complaint on the Monday, on which day, during investigation at the shop, the manager stated that the pie was received by him as part of a consignment of six on the previous Friday and all had been sold by the following day, Saturday. He indicated also that he had just taken delivery of a further six pies, and when those exposed for sale on the shop counter were examined one was found to be similarly affected with mould growth. This pie had the same code number on the packet as the article which was the subject of the complaint, but the others had different markings. The Public Analyst duly certified that both pies were unfit for human consumption. The manufacturers, in a letter to the department, suggested that their van salesman was at fault since he was instructed to ensure that all products handled by him were within the expiry code; if not, they were to be returned to the factory for the purpose of destruction. In this case the Procurator Fiscal decided that a warning letter should be sent to the manufacturers by this department.

A restaurateur was fined £20 when he pled "Guilty" to the sale of "sweet and sour chicken" which was unfit for human consumption and not of the nature, substance or quality of that demanded by the purchaser in that it was found to contain foreign matter which was web-like in nature with a quantity of charred vegetable debris. The Public Analyst reported that due to the fact that the product had probably been cooked with this web material it was not possible to confirm whether or not it had been formed by a mould rendered sterile on cooking or by an insect.

In relation to a large bakery firm who were implicated in selling through one of their branch shops a sausage roll containing a metal screw, the Procurator Fiscal decided that since there was no corroborative evidence regarding the purchase he did not propose to institute proceedings.

A woman complained that a packet of 'Bacon Uncooked Shoulder' joint when opened the day after being purchased, had a bad smell. She also observed that the label bore the information "Cook within 24 hours of purchase but not after the date shown above". This date was some three days before the date of purchase. The Public Analyst certified that the article was unfit for human consumption. At a pleading

diet in the Sheriff Court the firm pled "Not Guilty" but when the case came up for trial the plea was changed to "Guilty" and a £10 fine was imposed.

The three "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. One sample showed a nitrate content of 10.26 parts per million in excess of the recommended maximum of 10 parts per million. The other two samples showed lead contents of 0.09 and 0.23 parts per million respectively, both in excess of the recommended maximum of 0.05 parts per million. As was reported last year, it was hoped that this private supply would soon be converted to a mains supply from the East of Scotland Water Board. So far, however, this has not been achieved.

The one unsatisfactory swimming bath water was so reported because it gave a reading of 2.4 parts per million of free chlorine when the recommended maximum is 2 parts per million. Anything above this tends to irritate the swimmers' eyes. After appropriate adjustments had been made to the plant, however, subsequent samples gave acceptable readings.

The usual bacteriological examinations were also necessary under this 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	Unsatisfactory
1 Bridie	1	—
1 Cheese Footballer	1	—
28 Dairy Cream	18	10
1 Egg	1	—
2 Frozen Shrimp	2	—
3 Ice Cream	2	1
3 Ice Cream Liquid Mix	1	2
3 Ice Cream Powder	2	1
3 Ice Cream Utensil Rinse	3	—
24 Imitation Cream	21	3
2 Mains Water (Investigation)	2	—
25 Mains Water (Routine)	25	—
9 Milk	9	—
2 Milk Sachet Film	—	2
2 Milk Used for Manufacture of Ice Cream	2	—
1 Potted Hough	1	—
8 Sewer Swab	8	—
4 Springs and Wells Water	4	—
65 Swimming Baths Water	61	4
1 Tin Peeled Tomatoes	1	—
37 Washed Milk Bottle	35	2
5 Water from Ship (Routine)	5	—
3 Water from Ship (Investigation)	3	—

Routine water sampling is undertaken to detect any recent potentially dangerous pollution and to check quality of supply; empty milk bottles taken from dairies after being cleaned are examined to check the efficiency of the washing and sterilising processes; foodstuffs are submitted to detect the presence of pathogens in cases of reported sickness and to determine fitness for human consumption and imported foods (such as frozen shrimps) are examined with the same end in view; routine checks for the presence of pathogens are made by examining swabs taken from the main sewer of the public slaughterhouse.

Of the ten samples of dairy cream reported as being unsatisfactory, six came from supplies produced outwith the City. The appropriate Sanitary Inspector of the area concerned was notified on every such occasion with a request for his assistance and co-operation in getting the cause of the trouble identified and remedied. In at least one instance the outside Inspector admitted to also receiving unsatisfactory results from the dairy concerned. There was a suggestion in one case that the local dairyman had kept the cream too long on his premises but in fact the sample taken in Dundee had only been delivered that day. The introduction of a colour code cap on cream cartons to identify articles supplied on certain days was suggested and this was carried out. In another instance the local dairyman was undoubtedly at fault, the cream having been delivered to him some four days before the sample was taken and the storage conditions not being all that they should be. Thorough investigations were, of course, carried out by this department's inspectorate in regard to the four locally produced creams which gave unsatisfactory results.

Comments on imported foods sampled can be found in the section on sampling under the heading "Port Health".

Unsatisfactory reports in respect of samples of ice cream, ice cream liquid mix and ice cream powder mix all concerned one local manufacturer. Over the years consistently satisfactory results had been recorded from this source, but during 1971 and in the early part of 1972 it was found necessary to carry out extensive investigations to trace the cause of several sample failures. Milk on delivery to the premises, ingredients used in the manufacture, mixes both before and during manufacture, the final product, and so on were all sampled at various times and submitted for bacteriological examination. Rinses, using Ringers Solution, were also taken from utensils and equipment and tested at the laboratory. Eventually, a stage was reached when a succession of satisfactory results ended the trouble.

The three unsatisfactory samples of imitation cream were all taken from different bakehouses. Two of the failures related to high bacteria counts and one concerned the presence of coliform bacteria but with a low count. One of the samples was actually taken on delivery of the product to the bakehouse and showed, therefore, that the baker was not at fault. After certain remedies had been undertaken, further samples from the same premises all proved to be satisfactory.

Samples of milk sachet plastic film were submitted for examination during an investigation carried out as a result of a milk sample failure

recorded against a local pasteuriser. The milk sample had failed in respect of the coliform test but a report by the bacteriologist indicated the presence of pathogens. Further extensive examinations were carried out but the last report stated that the film was in fact satisfactory and fit for use in the formation of milk containers. It could only be assumed that contamination of the film had occurred in the laboratory.

Follow-on samples were taken as a result of the four failures reported in relation to samples taken from public swimming pools and all were found to be satisfactory.

The results of tests on milk bottles taken from dairies after they had been washed and were ready for filling showed an even greater improvement on last year's figure of 10% failures. Only 5% failures were recorded this year. Of the two found unsatisfactory, one dairyman was discovered to be at fault in using the wrong strength of sterilising agent. In the other case, the bottle-washing machine was found to be working efficiently and the strength of the sterilising agent was checked with a chemical indicator and found to meet the terms of the suppliers' instructions. No apparent cause for this failure could therefore be found.

The Labelling of Food Order, 1953 and Amending Regulations, 1959/61

The Labelling of Food (Scotland) Regulations, 1970, and Amending Regulations, 1972

This legislation is designed to protect the consumer by requiring that certain articles of food and drink which are pre-packed for retail sale shall be labelled in accordance with specific and general rules for the purpose of informing the intending purchaser as to the precise nature of the commodity, the various ingredients of which it is composed, the name of the packer or labeller, and so on.

When they become entirely enforceable on 1st January, 1973, the Labelling of Food (Scotland) Regulations, 1970, will completely supersede the 1953 Order, as amended. Although certain of these Regulations became operative during 1971, the main provisions do not come into force until the date mentioned.

The Labelling of Food (Scotland) (Amendment) Regulations, 1972, alter the definitions of "flour confectionery", "intoxicating liquor" and "pre-packed" as contained in the 1970 Regulations and add a definition of the word "mineral". They also amend the provisions relating to appropriate designations in respect of the names of ingredients used adjectively as well as the designations of species of fish, and as to the use of designations prescribed or permitted by clauses (2), (5) and (6) of Regulation 3. Certain exemption provisions have been altered and a Regulation is substituted in place of Regulation 15 of the 1970 Regulations as to the labelling and advertisement of dry mixes. The restrictions imposed by the principal Regulations on claims that foods are a source of protein is amended and another Regulation is substituted relating to claims as to the presence of vitamins and

minerals; the major alteration is the bringing up-to-date as far as nomenclature and specifications are concerned. These 1972 Amendment Regulations also further amend the Soft Drinks Regulations, 1964, extending to 5th January, 1976 (labelling and marking), with new provisions from this date for declarations on vending machines containing soft drinks, as amended, continuing to apply.

As has been mentioned in earlier Annual Reports, as a matter of routine, when samples of pre-packed foodstuffs are being procured under Food and Drugs legislation and during any inspections or visits carried out under other enactments, opportunity is taken by the inspectorate to check for contraventions of the labelling legislation.

During the year under review only five irregularities were recorded, and the following notes indicate the nature of these :—

The Public Analyst, reporting on an informal food sample sold as "Chicken Fritters", stated that the appearance of this article suggested that it was a product similar in nature to fish cakes with the substitution of chicken for fish. Analysis indicated a chicken content of 45%, which would also be consistent with a product of this type. In his opinion the designation of the article as "Chicken Fritters" inferred a piece of chicken dipped in batter and fried, for which, he stated, a reasonable meat content would be 70%. He felt therefore that the product was falsely described although the description "Chicken Cake" or "Chicken Rissole" would be satisfactory. The manufacturers indicated agreement with these observations and stated that their branch shops sell both "Chicken Fritters" and "Chicken Croquettes", the two lines differing in quality, price and shape. It seemed, however, that the branch concerned had wrongly labelled the article sampled. The firm's apology was accepted and no further infringements were discovered.

Another sample of "Chicken Fritters" from a different manufacturer was submitted to the Public Analyst who reported the article to be a filling surrounded by a fairly thick layer of batter. The filling was analysed and found to contain approximately 80% chicken which, however, was only 29.6% of the whole product. The Analyst stated that he would have expected that the filling, instead of being a paste type, should have been a discreet piece of meat. The percentage of meat in the filling indicated that it could properly be described as chicken with cereal, but to describe it as chicken was misleading. The Sausages and Other Meat Products (Scotland) Regulations, 1967, are also involved here and the stipulation is that there should be a minimum meat content of 35%. There was thus a deficiency in the article sampled of 15.4%. In reply to a letter from this department the firm stated that their product could be defined as a meat pie in terms of the Meat Pie and Sausage Roll Regulations, 1967, and therefore met the compositional standard. The matter was not pursued, however, since they decided to discontinue the particular line.

A tin of dried low-fat skimmed milk labelled "maximum fat content 1.5%", when analysed, was found to have a fat content of 1.7% - 13% above that stated. This appeared to be an isolated case, however, since

further samples of the same product showed a fat content conforming to the information on the label.

The Public Analyst, reporting on the analysis of a sample labelled "Vegetable and Liver Pate", stated that he was of the opinion that it did not conform to the Labelling of Food Order, 1953, in that no vegetable was mentioned in the list of ingredients stated on the label. The product had been imported, and as a result of a letter sent to the firm named on the label a reply was received from the importers to the effect that serious thought had been given to the labelling of this article, which was originally called "Swiss Pate with Herbs". Various Public Analysts and local authorities in England had objected to this description, however, and after consultation with their Public Analyst adviser the new name was adopted and approved by the other local authorities as being a more apt description. They further stated that liver is the only meat present in the product, the edible fat is vegetable fat and since the starch, the autolysed yeast, the yeast extract and the herbs and spices are all vegetable, the description "Vegetable and Liver Pate" is the best one that can be given. The Public Analyst consulted other experts in his field and they were of the opinion that the name given to the product really is unsatisfactory but that there was no adequate description which could be used which would render its sale legal. In their opinion an alternative name of "Vegetable Fat and Liver Pate" would be more correct but not likely to appeal to the firm in question. There was some feeling that the original name of "Swiss Pate with Herbs" was more satisfactory than the present one, although the Public Analyst felt that this implies a meat product in conformity with the description of the Fish and Meat Spreadable Products Order, and so again it would not comply. Under the circumstances the matter was allowed to rest.

Regarding a sample of Lemon Flavouring commented on in the Annual Report for 1971 in respect of the presence of the artificial colour tartrazine which was not listed on the label as an ingredient, correspondence with the firm continued during 1972 and was resolved when they finally decided to accept the Analyst's opinion and include the word "colouring" in the list of ingredients on any new labels. During the year, however, a further sample was found to be improperly labelled but investigation revealed that this was taken from old stock.

The foregoing remarks serve to underline the complexity of modern food legislation and the difficulties which can be encountered, regardless of the sincerity and willingness of manufacturers to comply. One wonders whether those formulating the legislation are not now going too far in their efforts to protect the public.

The Preservatives in Food (Scotland) Regulations, 1962

The purpose of these Regulations is to control the use of preservatives in foodstuffs by limiting the foods to which they may be legally added, specifying the permitted preservative, or preservatives, and the amounts allowed. All routine food samples taken by the department are carefully checked for compliance with these requirements and failures discovered

during 1972 all related to mince and sausages, details concerning which are as follows :—

Mince. Of the thirty-six informal samples purchased, fifteen were found to be in contravention of the Regulations in that they contained preservatives outwith the permitted period, which is June to September, inclusive, or exceeded the maximum allowed during that time, which is 450 parts per million sulphur dioxide. All fifteen cases were followed up by the taking of formal samples, of which nine proved to be genuine. Of the six others, five contained preservative outwith the permitted period and one contained preservative in excess of the permitted maximum. Proceedings were taken against five of the offenders, resulting in three fines of £10 and two of £5. In the other case a warning letter was sent to the offender by the Procurator Fiscal, to whom the facts were reported.

One other informal sample was found to contain 26 mg./100 g. of ascorbic acid which is listed as a specified substance in terms of the Meat (Treatment) (Scotland) Regulations, 1964. These stipulate that no raw and unprocessed meat shall contain any added specified substance. The Public Analyst reported that the amount of ascorbic acid in this sample was greater than is natural to mince, but a formal follow-on sample was found to be in compliance.

Of the twenty other formal samples obtained, three were found to be unsatisfactory. One contained preservative outwith the permitted period, another contained an excess of preservative, while a third was found to contain ascorbic acid. The offenders were all taken to Court and one fine of £15 and two of £10 were imposed.

Sausages. Of the thirty-six informal samples purchased, two were found to contain sulphur dioxide in excess of the permitted amount of 450 parts per million. Follow-on formal samples were taken, of which one proved to be satisfactory but the other again contained an excess of preservative. Proceedings were taken against this offender and a fine of £10 was imposed by the Sheriff.

Of the thirty-four other formal samples purchased, all were satisfactory.

The Sausage and Other Meat Products (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, and also specify requirements for the labelling, description and advertisement of such.

Testing for meat content is carried out at the time as samples are being tested for compliance with the legislation covering the use of preservatives. Nine informal samples of sausages were found to have deficiencies, two in lean meat content, six in total meat content and one in both lean meat and total meat content. One of these was also in contravention regarding the use of preservative.

Formal samples taken afterwards resulted in one vendor being fined

£25 for selling sausages deficient in both lean meat and total meat content and another two being warned for deficiencies in lean meat content. With the exception of a contravention concerning the presence of excess preservative, details already given under the appropriate legislation, all the other follow-on formal samples proved to be in compliance.

Of the twenty-seven other formal samples purchased, all were genuine.

The Ice Cream (Scotland) Regulations, 1948/70

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

For the Manufacture, Storage and/or Sale of Ice Cream ...	8
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	38
Premises Registered for the Storage and/or Sale of Ice-Cream	66
Vehicles Registered for the Manufacture, Storage and/or Sale of Ice-Cream on the Public Streets	1
Vehicles Registered for the Sale of Ice-Cream on the Public Streets	48

Chemical Analyses. The table in the Food Sampling section of the report which gives details in regard to Formal Sampling shows that twenty-four such samples of ice-cream were obtained and submitted to the Public Analyst. All were found to conform to the standards laid down in the Ice-Cream (Scotland) Regulations, 1970, and the following statistical information is taken from the Analyst's certificates :—

Fat		No. of Samples		Milk Solids-not-Fat		No. of Samples	
Under 5%	1	Under 7.5%	...	...	1
5% - 6%	1	7.6% - 8.5%	...	...	—
6% - 7%	1	8.6% - 9.5%	...	...	—
7% - 8%	2	9.6% - 10.5%	...	...	6
8% - 9%	11	10.6% - 11.5%	...	...	5
9% - 10%	7	11.6% - 12.5%	...	...	4
10% - 11%	1	12.6% - 13.5%	...	...	3
11% - 12%	—	Over 13.5%	...	...	5

Further study of the reports brings out the following :—

				Highest	Lowest	Average
Fat	...	...	...	10.1%	3.9%	8.3%
Milk Solids-not-Fat	...	...	...	15.0%	7.3%	11.3%

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

			COLIFORM			
			Present in Present in Present in			
Bacteria Count	No.		Absent	1 tube	2 tubes	3 tubes
0 - 1,000	21		18	2	1	--
1,001 - 2,000	3		3	—	—	—
2,001 - 3,000	4		4	—	—	—
3,001 - 4,000	—		—	—	—	—
4,001 - 5,000	—		—	—	—	—
5,001 - 10,000	7		4	1	1	1
10,001 - 20,000	6		2	2	—	2
20,001 - 30,000	—		—	—	—	—
30,001 - 40,000	2		2	—	—	—
40,001 - 50,000	—		—	—	—	—
50,001 - 60,000	—		—	—	—	—
60,001 - 70,000	—		—	—	—	—
70,001 - 80,000	—		—	—	—	—
80,001 - 90,000	—		—	—	—	—
90,001 - 100,000	—		—	—	—	—
100,001 - 150,000	1		1	—	—	—
150,001 - 200,000	—		—	—	—	—
200,001 - 300,000	2		—	2	—	—
300,001 - 400,000	—		—	—	—	—
400,001 - 500,000	—		—	—	—	—
> 500,000	1		1	—	—	—
	47		35	7	2	3

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 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 9, or 19.5%, failed to measure up to the recommended standard, but this was a significant improvement on last year's figure of 33.3% failures.

Four of this year's failures were in respect of ice-cream wholly manufactured outwith the City, and with regard to two of these, the Sanitary Inspector of the area concerned was notified in order that investigation could be made at the place of production. A reply was received to the effect that manufacturing methods were satisfactory and follow-on samples thereafter taken were found to comply with the arbitrary standard.

Investigation in connection with another failed sample manufactured outwith the City revealed that the vendor had discontinued sale, but the same manufacturer's product was traced to another local shop. A sample taken from these premises also failed to meet the standard, but in this instance it was discovered that the shopkeeper's conservator unit was not working properly. He had a new one installed, however, and subsequent samples were found to be satisfactory.

A sample taken from premises where only the final process of manufacture is carried out, in that the liquid mixture as supplied to the vendor from premises outwith the City is simply frozen into ice-cream on the latter's premises, failed because of a high bacteria count although it passed the coliform test. A sample of the liquid mix was then taken on arrival at the premises, as well as a sample of the frozen ice-cream, and both were found to be satisfactory.

As a result of a series of failures during 1971 and one early in 1972 a thorough investigation was carried out at a local manufacturer's premises and detailed information on this is given in that part of the report under the heading "Other Sampling".

Two samples taken from a large local manufacturer failed because of high bacteria counts (both passed the coliform test), but investigation did not reveal any reason for this, the plant, premises, equipment, etc. all being satisfactory. Follow-on samples were found to conform.

A sample taken from a local manufacturer had a low bacteria count but failed the coliform test. Investigation revealed that a washer on the agitator spindle in the freezer was worn. This was replaced and further samples met requirements.

Milk and Dairies (Scotland) Acts, etc.

At 31st December, 1972, the register maintained by the department showed that there were in the City :—

- 2 Producers of Milk and
- 517 Retail Purveyors (including Pasteuriser/Bottler/Retailers) comprising :—
 - 495 Purveyors from Shops, Milk Houses, etc.
 - 8 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 a Vns

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 186, and 52 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.

There are now no occupied byres within the City which are exempt from registration under the legislation.

A total of 1,074 other visits were paid during the year to premises which come under this heading.

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 1972.

Milk Consumption. The daily direct consumption of milk in the City, so far as can be ascertained, is approximately 15,417 gallons, made up as follows :—

	Gallons					
Premium Jersey	5
Premium	288
Standard	27
Pasteurised	15,050
Ultra Heat-Treated	47
Total	15,417

Add to this,

Milk used in the manufacture of Cream ..	218
and the full amount is	15,645

Sterilised milk is at the moment not available for sale in the City.

Of the daily direct consumption (15,417 gallons), 9,087 gallons (58.94%) are processed in Dundee, and of this amount 1,842 gallons (20.27%) are sold in bottles, 7,125 gallons (78.41%) in non-returnable containers, and 120 gallons (1.32%) in bulk to restaurants, etc.

Of the milk produced outwith and retailed within the City, totalling 6,330 gallons, 4,800 gallons are sold in bottles, 1,360 gallons in cartons or plastic containers and 170 gallons in bulk to restaurants, etc. These figures show that of the milk coming from outside agencies for retail sale within the City approximately 75% is sold in bottles and 25% in either cartons or plastic containers.

Milk Quality. Three formal and one hundred and twenty-nine informal samples of milk were obtained during 1972 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	Milk Fat	Average Non-Fatty Solids
January	12	3.85	8.68
February	17	4.18	8.72
March	8	3.76	8.76
April	9	3.77	8.77
May	12	3.58	8.73
June	9	4.01	8.91
July	9	3.94	8.84
August	13	3.87	8.91
September	9	3.87	8.73
October	15	4.18	8.89
November	10	3.98	8.71
December	9	3.54	8.59
	132	3.88	8.77

Milk Fat. The highest figure recorded was 6.60% and the lowest 2.15%. Samples showing a content of 4% and over numbered 32.

Non-Fatty Solids. The highest was 9.82% and the lowest 8.05%.

Samples containing 9% and over numbered 15.

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%
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All formal samples taken during the year proved to be genuine but five informal samples failed to conform in that one was deficient in fat content to the extent of 28.3%, and four were deficient in solids-not-fat, the percentage deficiencies varying from 0.47 to 5.00. Three samples were of milk supplied from outwith the City and the others concerned two local pasteurisers. With regard to a slight deficiency in solids-not fat (1.29%), at the time the sample was taken the local dairyman was in process of reorganising his pasteurising plant. In an instance concerning a sample relating to milk from outwith the City, the freezing point (Hortvet) figure indicated the presence of added water (approximately 2.17%). In all cases the usual practice of communicating with the dairyman and/or the appropriate local authority official was followed and formal follow-on samples taken later proved 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	31
Standard Milk	14
Pasteurised Milk	510
Sterilised Milk	163
U.H.T. Milk	18

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

The year turned out to be a period of consolidation for the local dairy trade after the great changes involved in the innovation of the sachet-filling machines. One pasteuriser more than trebled the throughput of his plant, increased raw milk storage facilities and doubled the capacity for refrigerated storage. A large milk depot was taken over by a new dealer who also holds pasteurisers' licences in other cities, and as a result of this, plastic milk bottles were introduced into Dundee for the first time. Apart from these changes, however, very little else occurred in relation to plant and premises.

In the packaging field the plastic sachet holds its own, but an increase in the popularity of the square-type waxed carton was noticed, especially in sales from supermarkets. Both types of packs appear to be equally acceptable from the public's point of view, and it is fair to say that the non-returnable container is here to stay. Bottles, it is hoped, are now definitely on the way out.

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	...	...	...	...	52	30	22
Standard	...	...	...	...	51	37	14
Pasteurised	...	...	...	...	320	277	43
Sterilised	...	...	...	...	—	—	—
U.H.T.	...	...	...	...	6	6	—
					429	350	79

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	...	...	...	9	2	—	11	—	22
Standard	...	...	...	8	3	—	3	—	14
Pasteurised	...	...	...	37	—	4	—	2	43
				54	5	4	14	2	79

Fifty-one of the failures (22 Premium, 14 Standard and 15 Pasteurised) all came from premises outwith the City, the remaining 28, or 35.4%, coming from local sources.

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.

Non-Designated Milk. No such milk was produced within the City during the year and it is of course illegal to offer for retail sale in this area anything other than designated milk.

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

Antibiotics in Milk

Twenty samples were taken and all were found to be free of antibiotics.

A maximum of 0.02 international unit of penicillin in 1 millilitre of milk is the arbitrary standard 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 these drugs.

Milk Vending Machines

Twenty-seven licences permitting the sale of Pasteurised Milk from approved coin-operated vending machines were in force during the year.

Of thirty-seven samples procured from these machines for bacteriological examination, seven were found to be unsatisfactory. Follow-on samples in each case, however, complied with the tests. Twelve samples were also taken for chemical analyses and all were found to be in compliance with the statutory compositional standards laid down.

These machines were made the subject of special visits on 108 occasions and their condition was also, of course, carefully noted every time a sample was procured.

Milk Dispensing Machines

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

Of forty-four samples taken for the purpose of bacteriological examination, six 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.

New Food Legislation

Information concerning some of the new food legislation which was placed on the Statute Book during the year under review is as follows :

The Bread and Flour (Scotland) Amendment Regulations, 1972

These amending Regulations, which came into operation on 1st November, 1972, extend the list of bleaching and improving agents which may be present in flour, to include azodicarbonanide, L-cysteine hydrochloride and L-cysteine hydrochloride monohydrate. They also amend the specified forms in which the nutrients chalk, iron, vitamin B1 and nicotinic acid or nicotinamide are required to be added to flour.

The Food (Control of Irradiation) Amendment Regulations 1972

These amending Regulations, which came into force on 1st April, 1972, revoked the Food (Control of Irradiation) (Amendment) Regulations, 1969, and amended the Food (Control of Irradiation) Regulations, 1967, by increasing the low level of irradiation that is permitted under Regulations from 10 rad. to 50 rad.

The Lead in Food (Scotland) Amendment Regulations, 1972

These amending Regulations, which became operative on 1st January, 1973, restrict to 0.5 parts per million the amount of lead which may be present in food specially prepared for consumption by babies and young children.

The Labelling of Food (Scotland) Amendment Regulations, 1972

Mention is made of these amending Regulations in an earlier part of the report dealing with the appropriate legislation.

Food Hygiene (Scotland) Regulations, 1959/1966

Routine inspections and supervision, the use of the educational facilities provided by the department, examinations of plans for new premises, and so on, followed roughly the same pattern as in previous years and it can be fairly said that the overall progressive improvement in general standards continues. Little difficulty is experienced in new premises where, in most cases, plans have already been submitted to the department for scrutiny and approval, and advice has been sought by architects, tradesmen, etc. as to the necessary legislative requirements. Structurally, as one would naturally expect, these new premises are designed so as to afford every facility for good standards of hygiene. A great deal of time is taken up in this connection, but this is considered well worthwhile. Enquiries and advice requested by food traders before commencing business are welcomed and encouraged and often prevent acrimony later on.

Many new premises specially designed for the sales of particular classes of food were opened during the year, including at least two large supermarkets, two large food warehouses, an addition to the 'Cash and Carry' type of wholesale warehouse, a number of small restaurants and one licensed restaurant. A large new indoor market was opened at the very end of the year.

New businesses of the small restaurant/snack bar type were generally found to have high standards of hygiene and to be provided with small, compact, but adequate sized kitchen areas containing modern stainless steel cooking units, most of the food (especially vegetables) being already prepared on delivery. Daily supplies ensure that little storage space is required, and the limited and specialised menus all contribute to eliminate food handling and storage and equipment-cleaning problems. The food is often cooked on demand.

Constant attention, however, has to be given to restaurants, particularly those serving oriental dishes, and the proprietor of one such establishment had to be taken to Court and was fined £80 for serious contraventions of the Regulations, the premises being in a very neglected, dirty and unhygienic condition, and undoubtedly a danger to public health. Needless to say, of course, this extreme action was only taken after repeated warnings failed to produce results. Almost immediately afterwards this particular proprietor gave up the business and the new owner at once introduced considerable improvement. Difficulties still exist, however, in that the premises, being old, are not

really designed for the purpose for which they are being used, highlighting once again the importance of good construction and design in relation to food businesses. But plans are in hand to remedy matters and consultations were taking place at the end of the year between the new owner and this department.

As has already been hinted at, it is rarely necessary to resort to the force of law to achieve the standards of hygiene required under the Food Hygiene Regulations, and this is indicated by the fact that during the year legal proceedings against only one other owner of a food business had to be taken. This concerned a small shopkeeper who manufactured on the premises ice cream from a cold mix powder and sold very little else apart from some confections. Although samples of his ice cream taken over the years gave him a good record in respect of bacteriological examinations, the premises were allowed to deteriorate to such an extent that he was warned on a number of occasions regarding dirty walls, floors, ceilings, shelves, etc. and also the fact that extraneous materials in the form of disused equipment, also dirty, were being stored in the back shop. Since no heed was paid to these warnings the circumstances were reported to the Procurator Fiscal and a fine of £25 was subsequently imposed by the Sheriff.

The smaller types of business premises which can be classed as "grocers" frequently create difficulties in that many of the occupiers are now selling a wider range of goods, including bakery produce, butcher meat and vegetables. Due to inadequate display facilities, various types of foodstuffs are often placed side by side and this, coupled with overstocking of small back shops, hampers thorough cleaning. Some such problems also arose in connection with a number of premises trading in "carry-out" snack meals because of inadequate working surfaces and lack of suitable food storage accommodation, but these were eventually overcome.

In some food shops and catering establishments there is still a reluctance by staff to wear adequate protective clothing and to minimise direct handling of food by making use of tongs, scoops, etc. This is an area where encouragement and persuasion far too often fail and it is surely about time for amending legislation to be introduced whereby such matters can be dealt with statutorily and compulsorily.

The standard of hygiene was found to be good in such places as old folk's homes, school meals kitchens and large canteens, but in restaurants and cafes where there is a continual service of food the standard tended to be lower. In the latter cases more attention and instruction had to be given but in many such instances the benefits of food hygiene education are soon lost because of the high turnover of staff, which appears to be a feature of this type of trade. Important duties such as dish-washing, equipment cleaning and general cleaning work are often allocated to the less skilled and poorer paid employees who have less interest in hygiene.

The ever-increasing problem of mice infestation continues to be a real source of trouble, although almost all the firms affected have employed expert exterminators at considerable expense. The trouble

is that in this area the species has developed an immunity to the previously very successful "Warfarin" poison.

There is a continuing increase in the number of aliens engaged in the food trade in this City and language difficulties are often encountered which hinder direct communication and prevent proper education in regard to food hygiene practices and responsibilities. It is appreciated, of course, that this problem is a fairly general one and the department's staff can only do their best under very difficult circumstances. It is amazing, however, how frequently they can be understood when it meets the convenience of the recipient.

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	41	396	9
Bakers' Shops	92	238	9
Butchers	97	664	2
Confectioners	14	189	18
Fishmongers	28	123	23
Fried Fish Shops	72	268	89
Fruiterers	51	108	9
General Stores	90	245	14
Grocers	194	599	26
Poulterers	1	10	3
Class B			
Boarding Houses	30	74	11
Cafes	33	151	10
Canteens	71	208	9
Clubs	32	44	3
Homes	17	46	2
Hotels	26	97	12
Public Houses	126	166	5
Restaurants	29	396	47
School Meals Services	90	171	2
Class C			
Poultry Packing Stations	—	—	—
Meat Processing Factories	8	28	4
Other Food Factories	21	55	12
Class D			
Vehicles	153	154	2

The above statistical information is on the lines requested by the Scottish Home and Health Department and records that 4,751 visits of inspection covering 1,416 premises were carried out during 1972.

A wide variety of relatively minor faults in food-handling, and discrepancies in carrying out the objectives of the Regulations, were

usually dealt with by immediate on-the-spot advice to the food-handlers or persons in charge, and written intimations to owners were served, as necessary, when specific improvements, particularly structural, were required.

Infringements numbered 1,521 while 1,257 defects or deficiencies were recorded as remedied at the end of the year.

Complaints lodged at the department concerning food premises numbered 147 and related to :—

Unhygienic Methods	...	...	...	19
Vermin Infestation	...	...	...	11
Choked Drains/W.Cs./Sinks/Burst Pipes	...	...	...	23
Smell or Fumes	...	...	...	9
Improper Refuse Storage/Disposal	...	...	...	24
Miscellaneous	...	...	...	15
Unfounded	...	...	...	46

Miscellaneous complaints concerned such items as missing underfloor ventilation grilles which might have allowed vermin access to shops, dogs fouling the pavement at the entrance to a snack bar, pigeons entering the dining-room of an old folks' home, the occupier of a fruiterer's shop not cleaning the mutual passage in a tenemental property, and so on. Approximately 31% of the complaints were unfounded and in many other cases food premises were only indirectly involved. None of the complaints received from the public concerned unhygienic premises, and "improper refuse storage and disposal" in most instances referred to unsightly bin stances at the rear areas of shops caused by vandalism and the dumping of refuse by unknown and unauthorised persons in the vicinity of shops.

In addition to the above, however, two complaints were lodged in connection with street trading vehicles from which food is sold. One in regard to the sale of firelighters from a mobile shop has already been commented upon elsewhere in the report; the other was in respect of a lack of storage facilities. The last mentioned complaint really arose as a result of children buying wrapped confections from a vehicle trading in a housing scheme and littering the area in the immediate vicinity with paper wrappers. The trader concerned readily co-operated with the department by advising children buying from him to make use of the vehicle's refuse receptacle. This sort of problem is a pretty wide one, however, and it is very difficult indeed at times to encourage, or even persuade or compel, children to use the vehicle refuse receptacles as mentioned.

During the course of 164 inspections of food vehicles, 57 contraventions of a minor nature were discovered, all of which were satisfactorily attended to.

Bakehouses

There were 41 such premises on the department's register at the end of the year, all coming within the category of "Mechanical Factory Bakehouse".

The total is three less than the figure for 1971 and represents the closure of two small mechanical bakehouses (one of which produced only sausage rusk) and one old established medium-sized one.

As has been reported before, the larger bakehouses present fewer problems from the point of view of hygiene due, generally, to the use of modern purpose-built premises and contemporary plant and equipment, routine cleaning techniques and closer supervision of staff. The smaller establishments, because of cramped working and storage areas and the lack of staff employed solely for cleaning purposes, need much more careful and regular supervision.

Routine cleaning of all parts of bakehouse premises and equipment is especially important in this particular business with its flour-dust and spillage problem and possible resultant insect infestations.

While, as has already been explained, there has been an increase in vermin infestation in food premises generally, so far as bakehouse premises are concerned it is always important to note that adequate storage facilities and the proper and frequent removal of all waste food are essential in any scheme of eradication.

An indication of the time devoted to maintaining a reasonable standard of hygiene in bakehouses may be gauged by the fact that no fewer than 396 visits were made to premises during the year under review. In all, 228 contraventions were discovered, of which 164 had been abated by the end of the year.

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

It is almost impossible to keep up-to-date records of premises which come under legislation because of the continual change in the composition of the City's retail trade. This is largely due to the vast amount of redevelopment which is going on and which has necessitated many traders making one or more moves before settling in to permanent new premises; also to the tremendous increase in short term traders making use of premises in redevelopment areas until actual clearance is begun.

So far as can be ascertained, however, there were at the end of the year some 1,895 businesses in the City which came within the scope of this legislation and these are categorised in the following table :—

Bakers	...	...	92	Electrical Dealers	...	45
Booksellers	...	...	44	Fancy Goods and Toys	...	38
Boot and Shoe Dealers	...	...	63	Fish Merchants	...	28
Brokers	...	...	31	Fruiterers and Florists	...	51
Butchers	...	...	97	Furnishers	...	36
Chemists	...	...	53	Grocers	...	284
Coal Dealers	...	...	7	Hairdressers	...	127
Confectioners	...	...	114	Ironmongers	...	19
Cycle and Motor Agents	...	...	57	Music, Radio and T.V.		
Departmental Stores	...	...	14	Dealers	...	26
Drapers and Outfitters	...	...	129	Newsagents and Tobacconists		73

Opticians, Watchmakers,				Photographers	...	...	20
Jewellers	...	...	47	Publicans	...	...	126
Paint and Wallpaper				Restaurants, Cafes, etc.	...	...	134
Merchants	...	...	58	Miscellaneous	...	...	72
Pet Stores	...	...	10				

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.

The inspectorate continued to require shopkeepers, as necessary, to display a Notice, as required under the last-mentioned Act, at the shop entrance intimating the day chosen as the Early Closing Day. Some shopkeepers, although regularly closing on a certain day, forget that the half-day is no longer fixed by Order and that the public have now to be informed in the prescribed manner of the Early Closing Day chosen voluntarily for the shop. This Notice, of course, indicates to inspectors whether the shopkeeper is conforming to the legislation by actually closing on the day nominated.

Contraventions of Shops Act legislation discovered and dealt with during the year numbered 130, almost all in respect of failure to keep records of hours of employment of young persons, failure to display abstracts of the Act, etc.

Of the four complaints received in 1972, two were from shopkeepers complaining about competitors not observing the provisions of the Act with regard to half-day closing. Warnings were duly handed out.

The only shops exempt from this requirement are those situated in the defined central area of the City and this is permissible by virtue of the Dundee (Central Area) Early Closing Day Exemption Order, 1971. There is, however, no compulsion to remain open in this area and quite a number of shopkeepers still continue to close for their usual half-day.

As in past years, shopkeepers in one other area of the City, that of the Broughty Ferry Ward, enjoyed the same privilege under the terms of a Suspension Order made during the year, but only to cover the period June to September, inclusive.

With reference to six day trading, of course, it should be emphasised that employees must still be given a weekly half-holiday and the department ensures that these rights are protected. The facility, however, more often than not, leads to the introduction of a five day week.

A third complaint received during the year related to shop assistants in a store not receiving a weekly half-holiday; instead, they were being allowed a full week off after certain periods of time. The attention of the management was drawn to the legislative requirements and the half-holidays were reinstated.

A fourth complaint concerned the employment of young persons (under 18 years of age) between the hours of 9 a.m. and 4 p.m. without a break. The Shops Act, 1950, states that no person shall be employed for more than six hours without an interval of at least 20 minutes being allowed and where hours of employment include the hours from 11.30 a.m. to 2.30 p.m. an interval of not less than three-quarters of an hour

shall be allowed between these hours for dinner. The Act further states that this interval shall be increased to one hour in cases where that meal is not taken in the shop. The proprietor of the business was informed of these facts and the shop assistants benefited accordingly.

Young Persons (Employment) Act, 1938

The usual quota of enquiries relating to this legislation were received and dealt with during the year, particularly in regard to permitted hours of employment. Once again, however, in a number of cases, the queries over working hours were closely related to remuneration (which is not the concern of this department).

No specific complaints were made, however, and no infringements were discovered.

Offices, Shops and Railway Premises Act, 1963

The total number of registered premises within the City at the end of the year was 2,047, a decrease of 23 in the 1971 figure of 2,070. This is the fourth successive annual decrease to be reported since 1969, and again is the result of extensive redevelopment in the central areas of the City.

New registrations numbered 138, comprising 54 offices, 59 shops, 15 warehouses and 10 catering establishments, while a total of 161 premises (44 offices, 93 shops, 14 wholesale shops, etc. and 10 catering places) were removed from the register because of demolition, change of occupancy and reconstruction.

A total of 18,179 employed persons were recorded as being covered by the Act, of which 7,460 were males and 10,719 were females. Those employed in Offices numbered 7,741, while other places of work accounted for the following numbers :—

Retail Shops	7,043
Wholesale Departments, Warehouses	1,074
Catering Establishments open to the public ...	2,180
Canteens	135
Fuel Storage Depots	6

The following table lists defects or deficiencies found during the year and contraventions, including those occurring in previous years, abated.

Table No. 1

Section of Act	DEFECT	Number of Contraventions	
		Found	Abated
4	Cleanliness—Lack of	103	90
5	Overcrowding	1	—
6	Heating —		
	Inadequate	17	10
	Absence of Thermometer	32	22
7	Ventilation—Inadequate	18	14
8	Lighting—Defective or Inadequate	3	3

Section of Act	DEFECT	Number of Contraventions	
		Found	Abated
	Brought forward	174	139
9	Sanitary Accommodation —		
	Insufficient	2	9
	Defective	14	9
10	Washing Facilities —		
	Insufficient	1	3
	Defective	10	11
12	Clothing —		
	Lack of Accommodation	3	3
	Lack of Drying Facilities	1	—
13	Sitting Facilities —		
	Insufficient	1	2
	Unsatisfactory	3	3
16	Floors, Passages and Stairs —		
	Defective	192	185
	Access	26	25
17	Machinery —		
	Dangerous	6	6
	Warnings	16	20
24	First Aid	47	40
49	O.S.R.9, 9A, 9B	44	23
		<u>540</u>	<u>478</u>

In addition to the foregoing 478 abated contraventions, 248 items were also deleted because of the cancellation of 203 intimations which had been served on owners and occupiers of premises which were later closed or demolished.

Standards of working conditions and routine safety precautions were in general very satisfactory, with steady improvement being maintained by the building of new warehouses, offices and shops and alterations to existing premises. Standards of shops in particular are also rising because of a tendency, with redevelopment, etc., for the smaller types of premises to disappear and give way to larger establishments whose owners have the financial resources necessary to carry out major works of modernisation. No specific cases of extremely poor conditions were encountered. On the other hand, it can be said of several recently erected warehouses and shops and reconstructed premises that standards are very high indeed.

The following table shows the number and types of hoists and lifts in registered premises within the City.

Table No. 2

Passenger	Passenger/ Goods	Goods		Dumb Waiters		Escalators	Pulley Hoists	Jib Cranes
		Electrical	Manual	Electrical	Manual			
60	29	47	1	20	6	8	10	2

During the year copies of five examination reports, in the prescribed form, covering three electric passenger/goods lifts and two electric goods lifts were received in pursuance of paragraph 6(3) of the Hoists and Lifts Regulations, 1968.

Worn and splintered suspension ropes again constituted the majority of defects reported, but circuit breaking contacts out of adjustment, defective landing sill, faulty interlock device and missing interlock switch covers were other matters which required attention.

In each case the installations were inspected to ensure that the necessary repairs had been carried out within the periods specified in the reports. In the only case where immediate repair was required the use of the passenger lift was discontinued and has remained so because of extensive reconstruction of the hotel premises concerned.

Following the discovery last year that examination reports on the prescribed Form 54 were being sent by inspecting engineers and surveyors to head offices outwith the City, arrangements were made with firms concerned to have photostat copies made available locally for inspection purposes by this department.

Prosecutions.

During the year, legal proceedings were taken against two Companies for contraventions of Section 17(1) of the Act. In the first case a young woman employee using an unguarded manually-operated guillotine amputated the tip of her left index finger when cutting small price tickets; although a guard was actually available the firm had failed to ensure that it was fitted to the machine. The second case involved a gravity-feed food slicing machine which the Company admitted was not adequately guarded. The offenders were each fined £10. In both cases immediate steps were taken after the accident to guard the machines and it was therefore not found necessary to invoke the provisions of Section 22 which provides for Court orders to prohibit the use of dangerous machines until appropriate remedial action is effected.

Accidents

Forty reportable accidents, all non-fatal, were notified during the year. This is an increase of ten over the 1971 figure. All were investigated and in nine cases written recommendations were made for particular 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 1971.

CAUSE	Number of Accidents	
	1972	1971
Machinery	4	2
Transport	3	-
Hand Tools	3	3
Falls of Persons	13	16
Stepping on or striking against object	1	5
Handling goods	6	1
Struck by falling object	5	1
Not otherwise specified	5	1

Three of the four accidents under the heading of machinery involved the use of gravity feed food-slicers, one being the subject of legal proceedings; the fourth occurred while de-icing measures were being carried out on the stationary blades of a refrigerated room cooling-fan.

Fork lift trucks were implicated in two of the accidents under the heading of transport, and in accordance with a request made by H.M. Superintending Inspector of Factories (Scotland) a special proforma was completed and submitted in respect of one of these which occurred during the latter half of the year.

As in previous years, more accidents were due to falls than to any other single cause.

Robens Report

The year was marked by the publication in June of the Report on Safety and Health at Work prepared by a Select Committee under the Chairmanship of Lord Robens.

The Report contains far-reaching proposals, some of which, if implemented, will add considerably to the present duties and responsibilities of local authority inspectorates. It is, for example, the intention to transfer to local authorities enforcement in relation to Crown premises, primary schools, and offices, etc. owned and occupied by local authorities, all of which, at the moment, come under the jurisdiction of the Factory Inspectorate, and legislation affecting employees will be unified and brought under the administration of a National Authority for Safety and Health at Work. The report postulates a new concept of achieving enforcement by a less rigid application of detailed regulations, and the adoption of presumptive standards — which can be altered as technological development dictates — backed by broadly defined statutory requirements.

Dundee Corporation Orders, 1957 and 1969

Matters administered by this department under the above legislation are herewith reported upon under the various sub-headings.

Hairdressers, Barbers, Ear-piercers and Tattooists

Hairdressing establishments on the register at the end of the year numbered 127 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.

The department is very conscious of the fact that the number of visits paid to these establishments by the inspectorate might, and perhaps ought to, have been greater but priorities are all important having regard to size of staff and this type of business really gives little cause for concern, the premises generally being found to be satisfactory and the business, almost invariably, being conducted hygienically and in accordance with the bye-laws.

Only two complaints were received during the year and these related to persons carrying on the business of hairdresser without being registered.

One man was found to be cutting hair in a factory during his lunch hour but when the attention of the management was drawn to this fact he had to discontinue his "business".

The other complaint concerned a woman alleged to be carrying on her trade of hairdressing from a Corporation-owned house which she occupied. Investigation, however, revealed that in fact she was not really carrying on a business but merely attending to the hairdressing needs of her relatives.

As yet, there are no bye-laws relating to the business of ear-piercing in force in the City and only one registration is recorded in respect of premises where this takes place.

So far as is known, there are no practicing tattooists 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 40 premises in this category, which includes privately-owned halls, church halls, community centres, etc., were inspected so far as the interests of this department are concerned (primarily in regard to sanitary accommodation, ventilation and cleanliness) to ensure that they were being satisfactorily maintained and conducted in accordance with local requirements. Relatively few defects were discovered and these were readily attended to by the management when intimation was given. Two more cinemas in the City closed during 1972 and one of these was demolished.

Places for Public Refreshment

Cafes, restaurants, tea-rooms, etc. which provide meals and light refreshments (other than intoxicating liquors) after certain evening hours, and on Sunday, are required to be registered by the Local Authority in terms of the Orders and are subject to control by bye-laws.

A total of 92 visits were paid to such establishments and nothing untoward falls to be recorded.

Street Traders

It is the department's responsibility to ensure that vehicles employed in retailing foodstuffs in the public streets, etc. are properly designed and suitably equipped for the purpose of the business which is carried on. The number of Street Traders and the manner of their trading is, by virtue of the local Orders, controlled by the Magistrates who grant licences, renewable annually. In all cases where foodstuffs are involved the licence is only issued after the vehicle has been inspected and approved by this department. The problem of controlling vehicles under their operating conditions, however, still presents many difficulties and the enthusiasm and conscientiousness of the person in charge is all important. There is still, and far too often, a tendency on the part of many operators to be careless in the maintenance and use of hand washing facilities and in the storage of refuse, etc.

A total of 188 inspections were carried out in connection with street trading and only two complaints were received. One concerned a person trading without a licence; the other was in respect of the sale of fire-lighters from a food vehicle. This complaint, however, appeared to be unjustified.

Conveyance of Waste Food

To prevent nuisance by smell it is a requirement of local legislation that suitable covered containers are used for the transport of waste food or swill intended for animal consumption. A constant look-out is maintained by the inspectorate for vehicles used for this purpose to ensure that this is done and that no nuisance arises during the operations.

Diseases of Animals (Waste Food) Order, 1957

This Order prohibits the feeding of swill or waste food to specified farm animals and poultry unless it has been properly processed by boiling. Measures must also be taken to ensure that the processed swill is not re-contaminated by any raw swill and that animals, birds or vermin are prevented from having any contact with the raw material.

An outbreak of Swine Vesicular Disease which occurred in Staffordshire towards the end of the year focused attention on the dangers of overlooking the requirements mentioned and because of this special visits were made at that time to the six premises in the City licensed for the heat treatment of swill to ensure that the plants were being operated satisfactorily. Thereanent, it was found that three of the licensees had discontinued handling swill and were using barley meal for the feeding of pigs instead.

Piggeries

Routine inspections were carried out at the nine remaining piggeries in the City to ensure that the premises were being satisfactorily maintained in compliance with the requirements of the bye-laws.

On average, approximately 800 pigs are kept in these premises.

Stables

No complaints were received during the year regarding conditions at these premises, but the usual routine visits of inspection were maintained to ensure that the animals were adequately housed and that no nuisance was arising from the storage of manure.

Offensive Trades

Eight businesses, detailed hereunder, are on the register of Offensive Trades; with the exception of one hide factor, all are carried on within the precincts of the Public Slaughterhouses.

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

The premises were all given the usual supervisory visits by the inspectorate to ensure that the bye-laws governing the respective trades were being complied with and that the processes were being carried out under hygienic conditions. Unhappily, however, it again falls to be reported that with the exception of the gut cleaners' building the premises are all very old and inadequate, appropriate comment having been made on this in the section of the report relating to Slaughterhouses, etc.

Animal Boarding Establishments Act, 1963

Only two establishments in Dundee are licensed in terms of the above Act and these were visited routinely to ensure that accommodation for the animals was suitable in regard to construction, size of quarters, numbers of occupants, exercising facilities, temperature, facilities, temperature, lighting, ventilation and cleanliness; also that the animals were being adequately supplied with food, drink and bedding material, adequately exercised and (so far as necessary) visited at suitable intervals. There was no cause for adverse comment in regard to these matters, and all reasonable precautions seemed to be being taken to prevent and control (as necessary) the spread of infectious or contagious disease, including the provision of adequate isolation facilities, and for the protection of the animals in case of fire or other emergency.

No complaints were received in respect of these establishments.

Pet Animals Act, 1951

Ten premises in the City are licensed under this Act, an increase of one since 1971. Two new premises were added, while one business was closed down. From a total of 30 visits made during the year, the attention of three owners had to be drawn to matters such as worn floor coverings, inadequate storage facilities and in one case the dirty condition of the walls and ceiling of a store-room. The five defects notified were readily remedied on request.

When licences came up for annual renewal it was possible to recommend approval in every case.

It was necessary, however, to report to the Procurator Fiscal the circumstances of one person who was found to be trading without the authority of a licence. The Sheriff imposed a fine of £20 or 14 days imprisonment.

Pharmacy and Poisons Act, 1933

Registrations for the sale of Part II Poisons at the end of 1972 again numbered 33.

Checks in connection with the storage and labelling, etc. of these commodities were made in the customary manner by the inspectorate in the course of carrying out routine inspections of shops under other legislation, and the premises of all sellers of Part II Poisons were visited specifically for approval prior to the inclusion of their names in the Local Authority's list.

Fertilisers and Feeding Stuffs Act, 1926

Twelve informal samples (six fertilisers and six feeding stuffs) were taken during the year for the purpose of chemical analysis.

Two of the fertilisers were found to be below the guarantee in total phosphoric acid to the extent of 2.1%, but investigation revealed that the product was no longer on sale locally and further samples could not be obtained.

Three feeding stuffs did not conform to the guarantee in respect of the oil content showing deficiencies varying from 0.9% to 1.9% and one of the samples was also deficient in protein to the extent of 12.9%. Investigation through the local seller and correspondence with the suppliers indicated that analyses of samples taken on import were satisfactory. The samples may not have been representative of the total consignment in bulk and the nature of the deficiencies did not warrant further action.

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 :—

Coir	...	...	...	1	Roll Felt	...	...	...	2
Loose Flock	...	...	...	2	Hog Hair	...	...	...	1

The Hog Hair sample showed a 0.3% excess of extracted matter over the permitted maximum of 1% allowed under the Rag Flock and Other Filling Materials Regulations, 1971. The excess was so small, however, that no action was taken concerning same.

Gaming Act, 1968

Ten premises were visited and inspected in connection with applications for renewal, etc. of Bingo, Betting and Gaming Licences under this legislation. A total of four minor defects were discovered in three of the Bingo Hall premises and the management readily attended to their remedy on being notified. Plans were also examined and Architects consulted in connection with applications in respect of new licences.

Port Health

The number of ships arriving at the Port of Dundee from foreign countries showed an increase of 120 compared with the previous year. There was a subsequent increase in tonnage.

Although there was a slight decrease in the volume of coastal shipping compared with 1971, an increase in tonnage was registered, this being mainly due to the number of oil tankers using the port.

Volume of Shipping Entering the Port

	No.	Tonnage
1. Foreign	413	360,146
2. Coastwise	358	322,174

Details of Foreign Shipping

No. of Ships 413

Coming From

Free Ports		Infected Ports	
Direct	Indirect	Direct	Indirect
343	1	45	24
Number carrying Deratting Certificates		...	1
Number carrying Deratting Exemption Certificates		...	410
Number with no Certificate		...	2*

* 2 yachts.

Inspections. Detailed routine inspections were carried out on all vessels arriving at the harbour from foreign ports. Coastal shipping was given attention as necessary.

The total number of nuisances discovered was 129 and in the majority of cases abatement was secured prior to the departure of the vessel. Only in a few instances were remedial measures not possible and in such cases arrangements were made for the necessary works of repair to be undertaken at the next port of call or when in dry dock.

Special attention was given to crews' quarters, messrooms, galleys, pantries, provision storerooms and sanitary accommodation to ascertain their cleanliness, state of repair and freedom from various forms of vermin. The standards of cleanliness and repair were found to be generally very good and no evidence of bugs, fleas or lice was detected, but a number of cockroach infestations were found in crews' quarters, galleys, pantries and storerooms of the larger vessels coming from ports in India and Bangladesh. Most shipping companies, however, now have contracts with pest control firms so that prompt eradication measures were always instituted during the vessels' stay in port. The techniques used today to combat these infestations are very sophisticated and generally most effective.

No necessity arose for the seizure of any foodstuffs but occasionally sacks of flour and curry powders affected by mites and weavils were voluntarily surrendered when inspection revealed the contents to be unfit for human consumption.

Deratting. All foreign ships were subjected to inspection for rodent infestation eradication measures taken as required. Four minor infestations were discovered during the year and in each case poisoning and trapping while the vessels were in port proved successful.

The provision of rat guards on mooring ropes is insisted upon while vessels are in Dundee harbour.

Deratting Exemption Certificates were issued in respect of 24 vessels which, after inspection, were found to qualify for such.

Coastal shipping coming within the scope of the Prevention of Damage by Pests (Application to Shipping) Order, 1951, was visited as opportunity arose and found to be clean and free from vermin at all times.

Water Supplies. The equipment used for supplying fresh water to ships was regularly inspected and found to be clean and in good repair. In 16 cases storage tanks for drinking water were cleaned out and cement washed prior to refilling. As in the previous year, well over 2 million gallons of water were provided for ships' use while the vessels were in port.

Sampling. Two consignments of foreign shrimps and prawns were off-loaded at the port for onward transportation in refrigerated vehicles to towns in England. Random samples of different gradings from each consignment were submitted for bacteriological examination and the consignments were held in cold storage until the results proved them to be satisfactory. Clearance certificates containing recommendations for the proper cleaning and cooking of the shellfish were then issued. Each refrigerated vehicle used in the transportation journey to south of the border was inspected and found to meet the standards necessary under the Food Hygiene Regulations.

Various samples of tea, orange juice, orange pulp and lemon juice were obtained during the year and on analysis found to be satisfactory.

A sample of sweet sliced mango chutney was found on analysis to contain lead in excess of the permitted amount.

The water supply on all of the ships used in the servicing and supplying of stores to the North Sea Oil Rigs was periodically tested because this water is also used for human consumption by the men on board the rigs. In every case the Analyst's reports were satisfactory.

Table of Inspections

Total Number of Verbal Intimations	129
Number of Visits to Ships	613
Number of Ships from Infected Ports (direct)	45
Number of Ships from Infected Ports (indirect)	24
Number of Ships from Free Ports (direct)	343
Number of Ships from Free Ports (indirect)	1
Total Number of Ships from Foreign Ports	413
Nuisances and Defects attended to	129

Comprising :—

Forecastles Cleaned	15
Messrooms Cleaned	18
Storerooms Cleaned	18
Choked or Defective Water Closets	17
Dirty Wash-basins	13
Discharge of Foul Water on Quay	18
Dirty Bedding (crew)	—
Choked Scuppers	12
Dirty Lockers	8
Ventilators Obstructed	9
Excessive Smoke Emission	11

**In addition the following works were carried out
while the vessels were in port**

Freshwater Tanks Cleaned Out	16
Forecastles Painted	18
Bathrooms or Wash Places Painted	22
Crews' Messrooms Painted	16
Crews' Living Quarters Painted	18
Water Closets Apartments Painted	26
Bilges Emptied	38

And the following are the details concerning deratting activities :—

(A)

Number of Vessels Subjected to Measures of Rat Destruction ...	4
On Ships —	
No. of dead rats recovered	21
No. of rats examined bacteriologically	Nil
On Shore —	
No. of rats destroyed other than on ships	236
No. of rats examined bacteriologically	Nil

Species of rats discovered —

On Ships — Black 14; Brown or Grey 7
On Shore — Black 56; Brown or Grey 180

(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	4
No. of dead rats recovered	21
Deratting Certificates Issued	Nil
Deratting Exemption Certificates Issued	24

General Prosecutions

Following is a summary of the results of the 31 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 £10
do.	do.	Fined £5
do.	do.	Admonished
do.	do.	Fined £10
do.	do.	Fined £10
do.	do.	Fined £10
do.	do.	Warning letter from Fiscal
do.	do.	Fined £10
Excess Preservative in Sausages	do.	Fined £15

Offence	Legislation Contravened	Result of Action
Sausages deficient in Meat Content	Sausage and Other Meat Product (Scotland) Regulations, 1967, Regulations 5(2) and 6(1)(b)	Fined £25
Metal in Bridie	Food and Drugs (Scotland) Act, 1956, Sections 2(1) and 8(1)	Admonished
String in Meat pie	do.	Deserted simpliciter
Beatles in 'Fru Bran'	do.	Fined £20
Sliced bacon with piece of adhesive dressing	do.	Fined £30
Sweet & Sour Chicken containing foreign matter	do.	Fined £20
Screw in sausage roll	do.	No proceedings
Cigarette filter tip in morning roll	Food and Drugs (Scotland) Act, 1956, Section 2(1)	Fined £25
Glass in Still Orange Crush	do.	No proceedings
Fabric in morning roll	do.	Fined £10
Decomposed potted hough	Food and Drugs (Scotland) Act, 1956, Section 8(1)	Fined £10
Mouldy bread	do.	No proceedings
Mouldy pie	do.	No proceedings
Mouldy steak mince pie	do.	Warning from Fiscal
Sale of bacon unfit for human consumption	do.	Fined £10
Failure to securely fence blade of hand guillotine	Offices, Shops and Railway Premises Act, 1963, Section 64(1)	Fined £10
Gravity-feed food slicer not fenced securely	do.	Fined £10
Dirty premises, equipment, etc.	Food Hygiene (Scotland) Regulations, 1959/66, Regulations 5, 9, 17 & 25	Fined £80
Dirty-shop premises	Food Hygiene (Scotland) Regulations, 1959/66, Regulation 25	Fined £25
Ascorbic acid in mince	Meat (Treatment) (Scotland) Regulations, 1964, Regulation 4	Fined £10
Pie deficient in meat content	Meat Pie & Sausage Roll (Scotland) Regulations, 1967	Fined £15
Carrying on business without pet shop licence	Pet Animals Act, 1951, Section 1(1)	Fined £20



