

[Report 1932] / Medical Officer of Health, St Andrews.

Contributors

St. Andrews (Scotland). Council.

Publication/Creation

1932.

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ROYAL BURGH OF ST. ANDREWS.

REPORTS

BY

Medical Officer

AND

Sanitary Inspector

For the Year 1932.





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INTRODUCTION

To the Department of Health for Scotland, The Provost, Magistrates and Councillors of the Royal Burgh of St. Andrews.

Gentlemen,

In submitting my Report on the Health of the Burgh of St. Andrews for the year 1932, I gladly avail myself of an opportunity of expressing my indebtedness to all those associated with me in the health activities of the Burgh. In particular do I desire to acknowledge the advice and help given me by Dr. G. Pratt Yule, Chief Medical Officer of Health, Fife County.

I have the honour to be,

Gentlemen,

Your obedient Servant,

G. MATTHEW FYFE, M.B., Ch.B., D.P.H.,
Medical Officer.

May, 1933.
Public Health Department,
County Buildings,
Cupar, Fife.

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ANNUAL REPORT, 1932.

INTRODUCTORY.

Among the social changes which have occurred during recent years one of the most remarkable has been the extent to which facilities for the treatment of the nation's sick have developed.

Hospitals originally charitable centres for the general treatment of people in necessitous circumstances have become highly specialised and complex organisations at which, in crowded areas, more than four-fifths of the population seek, as a right, relief from ailments. Nursing homes for the accommodation of those able or willing to pay have increased in number. Clinics for the treatment of special diseases and disorders have become more and more numerous. Throughout the country strenuous endeavours have been made to *cure* the diseases from which the people are suffering.

On the other hand it is unfortunate that so comparatively little has been done to *prevent* these common diseases. Wide spread although the ramifications of the statutory public health services of the country are and much as they have done to prevent infectious diseases, it is evident that little effect is being produced upon the incidence of the main mass of diseases which afflict the population. From a recent analysis of the causes of sickness and disability among the insured population in St. Andrews, for instance, it was evident that only about 15 per cent. of the illnesses came within the purview of public health administration, the majority of the complaints being outwith official concern.

That so little opportunity is afforded for an organised study of the volume of information and breadth of experience which accumulates in the minds of general practitioners as patient after patient passes through their consulting rooms is to be regretted, and it is equally to be deplored that so few practitioners take the trouble to record their experiences or note in detail their patients' histories, since it is only by such methods that light will be thrown upon the prevention of those everyday disabilities which are the principal cause of loss of working days.

St. Andrews, however, is fortunate in having, within its boundaries, an institution staffed by general practitioners who are devoted to the study of common diseases. Through a system of continuous record keeping, research and interchange of ideas and experiences, they are endeavouring to investigate disease before the "occurrence of any structural change in any organ of the body in the hope of providing a diagnosis at a period earlier than is possible by the methods now in use, and in order to obtain a knowledge of the circumstances that favour the onset of

disease." In other words they are concerning themselves with preventive medicine in its truest sense, since the earlier signs of ailment and disorder can be perceived, the more quickly and certainly can disease be prevented.

Although many important contributions to medical knowledge have already been made by members of the staff of the James Mackenzie Institute some time must elapse before its chief work bears fruit—Sir James, when he founded the Institute in 1919, declared that it would take 30 years for the Institute to realise its principal object—but it would be well at this juncture to indicate briefly the benefit which the town is gaining by having such an organisation in its midst.

It is admitted by the local doctors that, through the Institute, they have access to sources of information and opportunities for increasing their knowledge such as they would not otherwise possess. Under these circumstances it is not difficult to appreciate the position of comparative advantage in which the sick of the town are placed.

Through the Mother and Child Welfare organisation of the Institute expectant mothers in necessitous circumstances are examined free of charge by their own doctors, and infants and children are kept under observation in a manner which could not possibly be adopted under a corresponding Local Authority scheme. As a result, maternal morbidity and illness following on parturition are of rare occurrence. The infantile mortality rate has been halved. Marasmic babies are no longer seen. Rickets is unknown and the general standard of health of the juvenile population has been raised.

For the benefit of the adult public the waiting and consulting rooms of the Institute are open and in them patients, both private and panel, may consult their own doctors and, if such is required, undergo special examination in the X-Ray Department and Bacteriological and Chemical Laboratories. Few, if any, towns of similar size in the country can claim to have such a complete general and specialist organisation at the service of its citizens for the betterment of their health.

On account of the fact that the local doctors give their services free of charge, the upkeep of the Institute costs only about £1400 a year. This sum is provided entirely by private subscription. No contribution is made from the local rates. The Medical Research Council alone among public bodies, have, until recently, given financial support.

Unfortunately the economies which the national emergency demand are having their repercussion upon the financial position of the Institute and in the Annual Report for 1932 the Council

declare that unless a substantial increase occurs in the amount of contributions received it will be necessary to close the Institute.

Such an event would be a calamity for St. Andrews. The closure of the Institute would not only remove from the town the only organisation of its kind in the world, the work of which, if continued, is bound in time to influence the practice of preventive medicine, but would also deprive the citizens of the opportunities for medical examination by modern methods which they now conveniently have at little or at no cost to themselves and would bring about a constant transference of patients to the already over-burdened out-patient departments of the Infirmaries at Dundee and Edinburgh.

STATISTICAL COMMENTS.

On 14th November, 1932, by Sheriff's Interlocutor, the Burgh boundaries were extended to include an area of the landward part of the County. The extension necessitated the addition of 31 persons to the population enumerated at the Census in 1931, the total population then being 8300—3336 males and 4964 females. This figure does not take into account the number of the inhabitants in new houses which have been erected since 1931 in the annexed area, as only persons resident in that area at the time of the Census were considered. Nor does the figure include the population of St. Leonards School for Girls which is slightly in excess of 500.

According to the Registrar General the estimated population of the Burgh in 1932 was 8551. For the reasons given above, however, it will be clear that the number of persons ordinarily resident in the town is in excess of 9000.

During 1932 there were 93 births, 43 males and 50 females, representing a birth rate per 1000 of population of 10·9 as compared with 11·5 in 1931. Illegitimate births numbered 7.

The marriages registered numbered 37, the rate being 4·3 per 1000 of population.

Corrected for transfers, the number of deaths from all causes was 110—46 males and 64 females—the rate per 1000 being 12·9 a figure which was equal to that of the previous year and in excess of the birth rate for the year under review by 2. This is the third year in succession in which the death rate has been greater than the birth rate.

The infantile mortality rate of 32 per 1000 births was the lowest recorded since 1921, and was in marked contrast to that of the preceding year when it was 93 per 1000 births as a result of transfers from other localities.

There was only one death among children in the 1-5 years of age group.

The following were the total causes of deaths in the Burgh :—

Scarlet Fever,	1
Diphtheria,	1
Influenza,	3
Tuberculosis of Respiratory System,	5
Other Tuberculous diseases,	1
Cancer, malignant disease,	17
Other general diseases, chronic poisonings,	5
Cerebral Haemorrhage, etc.,	15
Other diseases of the nervous system and sense organs,	3
Heart Disease,	23
Other circulatory diseases,	2
Bronchitis,	3
Pneumonia, all forms,	2
Other Respiratory diseases,	2
Gastric and duodenal ulcer,	3
Appendicitis,	3
Diseases of the Liver,	2
Other digestive diseases,	1
Acute and Chronic Nephritis,	3
Other diseases of the genito-urinary system,	3
Puerperal Sepsis,	1
Congen. debil., premature birth, malformation, etc.,	2
Old Age,	2
Violence,	7

110

Diseases of the heart and blood vessels again occupied first place among the causes of death, 34 per cent. of the total deaths being due to these, as compared with 40 per cent. in 1931.

Cancer again came second with 16 per cent. as compared with 14 per cent. in the previous year.

Death from tuberculosis showed a slight increase, rising from 4 to 5 per cent. of the total deaths.

A distinct decrease occurred in the number of deaths from respiratory diseases, the figure falling from 15 per cent. in 1931 to 6 per cent. in 1932.

Infectious diseases, excluding tuberculosis, claimed 5 per cent. of the total deaths and deaths from violence equalled 6 per cent.

Although 60 per cent. of the deaths occurred among people of 65 years of age and over, a greater number of persons died in

the prime of life than has been the case for several years. 24 per cent. of the deaths were in the age group 35 to 64 years and 11 per cent. in the age group 10 to 34 years. The corresponding figures for 1931 were 20 and 6 per cent. respectively. On the other hand fewer children of 9 years and under died, the figures being 5 per cent. of the total deaths as compared with 12 per cent. in 1931.

ENVIRONMENTAL CONDITIONS.

Drainage.

The system of sewage disposal worked satisfactorily throughout the year. No complaints or need for action arose.

The storm overflow pipes which have been laid down at the Scores and at Dempster Terrace have been a decided improvement and have acted as a safeguard against flooding of neighbouring properties.

The drainage system of Woodburn Laundry has been linked up with the special sewage plant installed in that part of the town. Four new water-closets have been erected for the use of the workers and further alterations and improvements are contemplated.

The Kinness Burn was cleaned and widened from the Railway Viaduct to Fleming Place. No flooding took place in the vicinity throughout the year but there was no period of phenomenal rainfall such as occurred in 1930.

Of recent years expenditure on the Burgh sewage system has been considerable but the extensions and reconstructions which have been made were highly necessary in the interests of public health. The work has now been completed and, except for minor alterations and repairs, no further undertakings are necessary. So far as can be foreseen the system is sufficiently adequate to meet the needs of the Burgh for many years to come.

Refusal Disposal.

The amount of waste material with which the Town Council have to deal increases annually. In 1932, 4038 tons of house, trade and municipal refuse were disposed of, 3432 tons having been collected from houses. It can readily be understood that the disposal of nearly half-a-ton of refuse per head of population presents from time to time a problem in view of the difficulty of obtaining a suitable dumping site. The bents at the West Sands have been a stand-by for many years although more and more of that attractive waste land is being obliterated. During the past year the disused gasometer adjoining Balfour Place was

filled in without giving rise to greater cause for complaint than a plague of flies of brief duration. The old reservoir at Cairnsmill was also made use of and has now entirely disappeared. At the end of the year the Town Council obtained a lease of a new site in a field on the Stravithie highway about one mile south-east of the Burgh. There should be sufficient space on this site to meet requirements for a considerable time.

The method of controlled tipping has been employed at the City dumps during the past few years. When properly carried out this method gives rise to little cause for complaint. Although rat infestation has taken place from time to time, the appearance and working of the refuse tips have been of satisfactory nature.

The disposal of waste paper presents difficulties occasionally, 108 tons of waste paper were collected in 1932. Part of the amount was baled and sold; part was burned at the old refuse depot at Cannongate. Complaints arose regarding the odour of burning material which emanated from the depot, but on investigation it was ascertained that noxious smells were due for the most part to unauthorised dumping of waste material by tradesmen. Steps were taken to prevent recurrence of the practice.

Householders continue to place domestic refuse in uncovered bins whereby risks of infections and pollutions are constantly occurring. In the interests of the general welfare of the Burgh it is very advisable that covered receptacles should be used by every household. The Town Council have proposals towards that end under consideration.

In spite of the fact that the streets of the town are patrolled daily by employees of the Cleansing Department, fouling of the footways, paths, walks and grass land of streets and public places is persistently noticeable. Apart from the unsightliness occasioned, the nuisance is a menace to health and is due to a considerable extent to dog owners exercising insufficient control over their pets. Reference has been made to the matter in this Report for the past six years and little or no improvement has taken place. Several Local Authorities in England have found it necessary to introduce Byelaws to check the nuisance. From appearances, St. Andrews Town Council will soon require to consider similar procedure, especially since the number of dogs in the town—509 in 1932—shows no sign of decreasing.

Water Supply.

The standard of purity of the water supply which was established in 1931, after the completion of a comprehensive scheme of improved filtration and storage, was maintained throughout the year. A bacterial examination of tap water was made each

month and it was found that *Bacillus Coli* was absent in 100 c.c. on each occasion except in January and October, when the samples happened to be collected in the course of treatment of the primary filters which caused the organism to appear in 50 c.c. of water. Other bacteriological tests gave satisfactory results throughout.

Routine laboratory investigation of the purity of the water supply is of distinct value and well worth the small expense involved, since it affords a delicate means of control of the system of purification. On several occasions during the past few years the bacteriologist has provided information which, on investigation at the water works, has led to the discovery of unsuspected faults. Such timeous warnings insure safety and economy in upkeep.

It can safely be claimed that the St. Andrews Water-works can compare creditably with those of any small burgh. With the provision of a 24-inch layer of Arran sand on each filter the work of renovation and reconstruction has been completed and it is now anticipated that no further capital expenditure need be incurred for many years to come.

A still further increase occurred in the average consumpt of water per head of population, which reached the high figure of 72·56 gallons. The amount of water available is more than sufficient to meet an even greater consumption but the figure is undoubtedly an extravagant one. It will be reduced, however, during the current year since leakages in the main supply have been detected and stopped. Inspection of water fittings has been temporarily held in abeyance. It would be well if the system were re-introduced since it is known that taps in many gardens and resident institutions are frequently allowed to run to waste.

Atmospheric Conditions.

The sunniest month was June when there was 213·7 hours of bright sunshine. The total number of hours of bright sunshine for the year was 1397·3, the fourth highest number of hours recorded among the twenty-one stations in Scotland.

The warmest month was July and the coldest month was March.

The mean temperature for the whole year was 47·9 degrees F., a figure which gives an accurate indication of the average temperature maintained over the past ten years.

The driest month was February and the wettest month was October. The total amount of rainfall for the year was 27·83 inches, 5·03 inches more than in 1931. There were 181 wet days and 14 days in which snow fell.

Ultra-violet light radiation continued to be recorded on the tower at Kinburn. The following are the average monthly readings, one unit being equal to twice the amount of ultra-violet light necessary to produce sunburn :—

Month	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.
Units	0·4	0·5	0·8	1·2	0·9	1·8	1·4	1·2	1·3	0·7	0·5	0·2

The average amount of radiation for the year was ·9 as compared with 1·26 in 1931. The great difference between the average readings for the two years may be partly accounted for by the fact that, although the total hours of sunshine were greater, a lack of sunshine really characterised the year. Nevertheless the discrepancy seems to call for further investigation.

Housing Conditions.

By the completion of the Seventh Development an additional 28 houses were added to the number of houses provided by the Local Authority. The total number of houses erected since 1920 is as follows :—

Two-roomed houses,	..	..	..	..	119
Three-roomed houses,	..	..	..	..	164
Four-roomed houses,	..	..	..	..	95
Five-roomed houses,	..	..	..	..	12
Total,	..	..	..	..	390

During the year 9 houses were built by private enterprise and 2 houses were erected with assistance from Government subsidy.

Plans for the alteration and extension of three dwelling-houses, a school and a clubhouse and for the erection of two shops and three garages and other such erections were approved by the Local Authority.

Towards the end of the year a site was selected for houses to accommodate families displaced by the proposed Union Street and Muttoes Lane Clearance Scheme on the south side of the Kinness Burn to the west of the Boy's Brigade Hall and a commencement was made with the erection of 40 three-roomed houses and 6 four-roomed houses. It is expected that the houses will be ready for occupation in July of the present year.

It has been pointed out on many previous occasions that in spite of the extensive building programme undertaken by the Town Council, no earnest attempt has been made to improve the condition of the houses of the poorer classes. There are many defective and uninhabitable houses in the town. Some of them form individual properties, others are situated in groups. Examples of the latter are to be found in Union Street, Muttoes Lane, Balfour Place, Shorehead and in the vicinity of Louciens

Close. Most of the houses in these areas are in such an insanitary state that the only method of dealing with them on health and economic grounds is complete demolition. Complications, however, are many and it was not until December that the time was considered opportune for the submission of an Official Representation calling for the demolition of 22 properties on the west sides of Union Street and Muttoes Lane comprising 44 dwelling-houses, 7 shops, 2 workshops and 1 garage. The Representation was accepted by the Town Council who, on 9th January, 1932, passed a Clearance Resolution defining the unhealthy areas and indicating that they intended to secure the demolition of all the properties in these areas. Since then much consideration has been given to the method by which their object might best be achieved—whether by Compulsory Purchase Order, Clearance Order or by private agreement.

If the first method is adopted the cleared sites will become the property of the Town Council and reasonable compensation will be paid to the proprietors. If the second is followed the cleared sites will remain in the possession of proprietors and no compensation will be paid except for business premises. All things considered, the first method presents the greater advantages from the points of view of the future development of the sites and of fair play to all concerned. The second method would be unjustifiably severe upon those proprietors who depend upon the rents as a principal source of income and, in view of what has happened in other parts of the town, would, in contradistinction to intentions, almost certainly lead to a repetition of the present congestion of buildings. From the aspect of maintenance of the characteristic features of this old part of the city, there is much more in the problem than the getting rid of unhealthy houses.

The present year will probably be well advanced before the problems in connection with the two localities are settled and there yet remains to consider action in connection with the other unhealthy areas and individual defective houses. In 1932 no demolition orders or notices calling for repairs were served.

The number of applicants for houses was greatly increased, especially by applications from persons already resident in the Burgh. The Housing Register shows the following numbers:—

	<i>Local</i>	<i>Outside</i>
	<i>Applicants.</i>	<i>Applicants.</i>
Two-roomed houses,	52	16
Three-roomed houses,	77	32
Four-roomed houses,	19	19
	—	—
Total,	148	67
	—	—

These numbers do not include persons in the proposed Muttoes Lane and Union Street Clearance Areas for whom houses are presently being built.

There is no accurate information regarding the total number of overcrowded houses in the Burgh. It is estimated, however, that there are about 30 such houses, the majority of which are marked for treatment under the Housing Act.

From the above paragraphs it will be clear that if the needs of applicants for houses are to be met and if insanitary houses are to be closed, a further housing development will require to be undertaken, since the number now being built is quite inadequate to meet immediate demands. There are about 60 uninhabitable houses in the Burgh apart from those in Union Street and Muttoes Lane and if to that number is added the number of houses required for applicants, the total number of houses required exceeds 250. On the other hand the number of applicants for houses fluctuates and difficulties are bound to arise regarding the treatment of uninhabitable properties so that before undertaking further commitments it would be reasonable to await the outcome of the present Slum Clearance Scheme. Some tenants in the condemned houses will not desire to enter municipal houses in which case an opportunity might be taken of offering houses to inhabitants of other individual insanitary properties or transfers might be arranged to the present residences of applicants. After the whole scheme has been entirely disposed of, other schemes will be brought forward when the whole procedure can be started anew. It is certain at all events that future building activities on the part of the Town Council will be based on replacement of uninhabitable houses, especially in view of Government economies in housing subsidies.

Building Byelaws.

The necessity for Byelaws regulating the building, alteration and reconditioning of houses has been frequently stressed in previous reports and, during the year, an important step was taken towards their formation. The Department of Health, after long consideration, have issued to Burghs Model Byelaws and the Town Council remitted these to the Burgh officials in order that they may submit proposals for local adoption. While several of the Model Byelaws are not suited to local conditions the remainder are admirably thought out and if put into force by the Town Council will secure a definite improvement in the general standard of building in the Burgh. It is hoped that a set of draft byelaws will be submitted for approval in the course of the present year.

Town Planning.

Consideration of the clearance and subsequent development of insanitary areas in the Burgh have served further to emphasise the need of a Town Planning Scheme. The growth of the town of recent years, the congestion of properties which is occurring in the older parts and the increasing volume of traffic which is passing through the streets, many of them narrow and overhung by old properties, all point to the need for a far-seeing scheme of town planning. By the passing of the Town and Country Planning (Scotland) Act, 1932, the development and planning of land in Scotland, whether urban or rural, has been readjusted and placed on a more comprehensive footing to allow for a wider conception of the problems involved and their influence on regional developments. Executive powers are placed in the hands of county councils and of town councils of large burghs but, when schemes relate solely to land within small burghs the town council may have powers transferred to themselves. It would be much in the interests of St. Andrews if the Town Council were to take an early opportunity of availing themselves of these powers. Yearly, unnoticed by the casual observer, the frontages of the principal streets tend more and more to hide conditions which urgently require regulation.

INFECTIOUS DISEASES.

The following number of cases of infectious diseases were notified :—

Scarlet Fever,	8
Diphtheria,	10
Erysipelas,	2
Chickenpox,	35
Infantile Paralysis,	1
Acute Primary Pneumonia,	10
Acute Influenzal Pneumonia,	3
Pulmonary Tuberculosis,	12
Non-pulmonary Tuberculosis,	2
Puerperal Pyrexia,	2

85

A slight increase in the incidence of infectious diseases occurred, due largely to chickenpox. None of the other notifiable diseases assumed epidemic proportions. In January there was an outbreak of measles, part of a wave of infection which spread to the coast from Cupar District. The outbreak was confined to children of school years and was of mild character.

Eleven deaths resulted from infectious diseases, viz. :—scarlet fever 1, diphtheria 1, influenza 3, tuberculosis 6, puerperal fever 1.

The following number of patients were treated in hospital or other institutions, the average duration of stay of patients in the City Fever Hospital being 21·7 days.

	<i>City Hospital</i>	<i>Other Institutions.</i>
Scarlet Fever,	13	..
Diphtheria,	8	..
Scarlet Fever and Diphtheria,	1	..
Erysipelas,	1	..
Acute Primary Pneumonia,	4	..
Acute Influenzal Pneumonia,	3	..
Poliomyelitis,	1	..
Pulmonary Tuberculosis, .. .. .	..	4
Puerperal Pyrexia, .. .. .	..	1
Chickenpox,	1	..
Whooping Cough,	1	..
Toxic Influenza,	1	..
Observation,	6	..
	—	—
Total,	40	5
	—	—

Twelve of the patients admitted to the City Fever Hospital were from the neighbouring County landward area, viz. :—scarlet fever 6, diphtheria 3, pneumonia 1, observation 2.

Two deaths occurred during the year. One from cardiac failure following a mixed infection with scarlet fever and diphtheria and the other from laryngeal diphtheria. The first was in hospital for seven days, the second for two hours. Neither case had been previously immunised against diphtheria.

Several of the patients admitted to hospital were seriously ill and for some time gave cause for anxiety.

One cannot speak too highly of the skilled nursing and self-sacrifice displayed by the Matron. Isolated on the outskirts of the town and for months on end with no company but the sick, her services to the community can be appreciated to the full only by those who have passed under her care. There are many who owe their lives to Miss Sanderson.

Diphtheria Immunisation.

Diphtheria immunisation is carried out in the City Fever Hospital by the Matron who reports “ 35 children were immunised against diphtheria as compared with 41 in 1931. Two of these

were referred by a private practitioner and four from the Child Welfare Centre, where notices have been posted. The remainder came to the hospital voluntarily as relations or friends of patients. Mothers were very grateful to receive information regarding immunisation against the disease and expressed surprise that they had not been told of it by their family doctors. In no case did a mother refuse to have her children immunised and very willingly brought them at regular intervals. With the exception of one child from Cellardyke, all the children came from St. Andrews. Forty-three children who had been immunised previously were re-tested and only one was found still to be susceptible."

Immunisation is carried out free of charge and every child in the Burgh is welcome to attend. The process is painless and, except in the case of adults in whom a little malaise sometimes follows, is accompanied by no upsetting effects. A month or two after the injections full immunity develops and the child or adult invariably remains resistant to the disease for all time.

Apart from the risks of death or permanent disability which are prevented by the process, immunisation is advisable from the financial point of view. The average cost incurred by the Local Authority for the treatment of a case of diphtheria in the City Fever Hospital is £12 17s 9d. It costs only 2s 5d to prevent a person acquiring the disease. In other words, treatment of one case of diphtheria costs as much money as would immunise approximately 100 children.

MATERNAL AND CHILD WELFARE SCHEME.

The St. Andrews Maternal and Child Welfare Scheme is under the care of Dr. Rowand who has applied a life-long experience to its development. The unique degree of co-operation which has been established between private and official agencies has been a subject of wide-spread interest and remark. Fully twelve years have elapsed since the scheme was inaugurated during which time careful and continuous records have been compiled of the health histories of a large section of the juvenile population. Much valuable information is contained in these records and now at the call of the Medical Research Council, whose financial support has made the scheme possible, Dr. Rowand is preparing a detailed report on his observations. Since no such scheme exists elsewhere in the country, the communication will be one of great interest and value. Among other important matters it is expected that fresh light will be thrown upon the incidence, nature, and significance of the ailments which commonly affect children, before they reach the age of school years.

From the following paragraphs it will be seen that in 1932, as in past years, a great deal of routine and special work was accomplished by Dr. Rowand and his staff.

Births.

The Health Visitor received intimation of 102 births, 9 of which occurred outside the Burgh. Of these, 15 were attended by doctors in the Memorial Cottage Hospital, 6 by doctors and private nurses in patients' homes, 41 by doctors and the Nursing and Child Welfare Association's maternity nurse in patients' homes and 31 by the same nurse alone.

The Association's Maternity Nurse attended, in addition, 3 confinements outside the Burgh under an arrangement made in 1930 whereby her services were to be available for a small area of the neighbouring landward part of the County.

There were 4 illegitimate births and 3 still births, one in the Cottage Hospital, one in the practice of doctors and one in the practice of midwives. One case of twins occurred.

Infantile Mortality.

The number of deaths among infants under one year of age fell from 9 in 1931 to 3 in 1932, the rate being 32 per 1000 births, the lowest recorded for 11 years. One of the infants was not tended in the Burgh. The causes of death were as follows:—

Under 1 week—

Prematurity,	1
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1—4 weeks—

Prematurity,	1
--------------	----	----	----	----	---

Congenital Heart,	1
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There was one death among children in the 1—5 years age group.

Comparatively, the year was, therefore, a highly successful one so far as the saving of infant life is concerned.

Maternal Mortality.

One mother who was notified as suffering from puerperal sepsis died in the early days of the year in hospital.

Nursing and Midwives Services.

One whole-time registered midwife is employed by the St. Andrews Nursing and Child Welfare Association. During her absence on holiday her work was done by midwives engaged for the time. The Health Visitor is also a registered midwife but her

practice is confined to emergency cases only. During the year another nurse intimated her intention to practise for a period of one month.

The Association, in continuance of the excellent work they are doing among the infants and sick in the Burgh, continued to employ a District Nurse and a Baby-craft Nurse for the Ailing Babies Ward at the Centre in North Street.

There were only 4 calls for medical help, viz. :—

Still birth,	1
Post-partum haemorrhage,	1
Ruptured perineum,	2

Home Visitation.

The total number of children under 5 years of age on the register of the Child Welfare Centre was 498. Of these all but 10, who reside at a distance from the Burgh, were visited at home.

The following number of visits were paid :—

	<i>Number on Register.</i>	<i>Total Visits.</i>
Under 1 year,	195	1384
1—5 years,	303	452
Expectant Mothers,	74	519
Total,	572	2355

In addition 10 other children on the register were visited by the Health Visitor in the landward part of the County, and 8 visits were paid to 4 expectant mothers.

The total number of visits paid by the nurse was therefore 2383.

Infant Feeding.

The following figures are applicable to the number of infants on the register reaching the age of 6 months in each of the past 10 years :—

Year.	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Per cent. breast fed,	61	62	63	59	66	62	58	50	59	61
Per cent. partially breast fed,	6	16	4	12	8	11	10	14	5	12
Per cent. bottle fed,	33	22	33	29	26	27	32	36	36	27

There were 105 babies on the register and it is satisfactory to note that fewer of them were artificially fed than has been the case for the past year or two. 81 of the babies were attended at birth by the Association maternity nurse and followed up by her during the breast feeding period. Of these, 63 per cent. were entirely breast fed at six months, 11 per cent. were partially breast fed and 26 per cent. were artificially fed.

Ante-Natal Consultations.

Ante-natal consultations continued to be held in the James Mackenzie Institute. Little difficulty is encountered in persuading expectant mothers to attend, possibly because they come under the care of the doctors of their choice, there being no specially appointed doctor in charge.

The number of weekly sessions and their duration were according to the number of patients seen. 36 expectant mothers made 41 attendances. None of these presented any marked abnormal features on examination.

Post-Natal Consultations.

No special arrangements have been made for the medical supervision of post-natal cases. The maternity nurse paid 1086 visits to 72 cases in the Burgh and 34 visits to 3 cases in the landward part of the County.

CHILD WELFARE CONSULTATIONS.

1. Child Welfare Centre.

Clinics were held by Dr. Rowand twice weekly in the Child Welfare Centre in sessions lasting $2\frac{1}{2}$ hours each. 103 such sessions took place during which 269 children were examined. The following number of attendances were recorded :—

(a) Number of children attending—

(i) Under 1 year of age,	..	..	..	206
(ii) 1—2 years,	..	..	..	37
(iii) 2—5 years,	..	..	..	20
(iv) Over 5 years,	..	..	..	4
Total,	..	..	..	269

(b) Number of attendances—

(i) Under 1 year of age,	..	..	..	1341
(ii) 1—2 years,	..	..	..	152
(iii) 2—5 years,	..	..	..	58
(iv) Over 5 years of age,	..	..	..	4
Total,	..	..	..	1555

In addition 133 visits were paid to the Nurses at the Centre at times other than those of the doctor's consultation hours.

2. James Mackenzie Institute.

Sixty-eight special clinics in sessions lasting $2\frac{1}{2}$ hours each were held by Dr. Rowand for children over 2 years of age.

(a) Number of children attending—

(i) 2—5 years,	..	..	..	..	230
(ii) Over 5 years,	..	..	..	..	80
Total,	..	..	..	..	<u>310</u>

(b) Number of attendances—

(i) 2—5 years,	..	..	..	..	370
(ii) Over 5 years,	..	..	..	..	136
Total,	..	..	..	..	<u>506</u>

The special clinic arranged for children attending school was more or less discontinued towards the end of the year, not because of diminished popularity, but because pressure of other work prevented Dr. Rowand from devoting such time to it as he would have liked. The Area Medical Officer, however, continued to add notes to Dr. Rowand's records and to maintain co-operation.

The scheme for the observation of children has gained the entire confidence of the parents of St. Andrews. Of the 93 babies born during the year, 2 died, 3 were still born and 4 were taken from St. Andrews in their first month. Of the 84 babies left 79 or 94 per cent. benefited from the resources of the scheme and 71 or 84·5 per cent. regularly attended the infant clinics. Such signs of appreciation of the work of Dr. Rowand and his staff are a source of great encouragement.

Observation Nursery.

The observation Nursery at the Child Welfare Centre provided for the needs of ailing babies and of infants requiring regulation in feeding. Both burghal and landward cases attended. Four cots are available.

(a) Number of cases received.	<i>Resident. Non-Resident.</i>			
(i) Under 1 year,	4	46
(ii) Over 1 year,	1	3
Total,	<u>5</u>	<u>49</u>

(b) Number of attendances.

(i) Under 1 year,	58	923
(ii) Over 1 year,	3	69
	—	—
Total,	61	992
	—	—

Total number of attendances—1053.

Food and Milk Supply.

On the application of the Health Visitor, the Fife County Council supplied food and milk to two nursing mothers, 4 artificially fed infants and one pre-school child.

Milk and cod liver oil are still given occasionally to necessitous cases by private donation. The children attending the Infant Schools continued to receive a pint of Certified milk daily, the gift of Mrs. Younger of Mount Melville.

Provision for Maternity Cases.

The Memorial Cottage Hospital is the only institution in the Burgh which is equipped for the reception of maternity cases. It is registered as a Maternity Home under the Midwives and Maternity Homes (Scotland) Act, 1927, and is in every respect in keeping with the requirements of the Act. There are four single-bed wards and an operating room.

During the year 15 confinements took place, all with medical attendance. Of these 6 were instrumental deliveries due to delay in the second stage or to other interferences with normal labour. There was one case of retained placenta. No deaths of mothers or infants occurred. There was one still birth.

FOOD SUPPLY.

Meat Supply.

The outstanding event in the safeguarding of the Burgh meat supply was the closing of the unsatisfactory slaughter-house in South Bridge Street and the opening of the new slaughter-house at Maryfield in October. The new building is considered to be one of the most up-to-date in Scotland. Its arrangements and fittings are all designed to secure safety of the meat supply combined with expedition in handling. All animals including swine are instantaneously stunned by captive bolt pistol in mechanically operated stunning pens. After dressing, carcasses are conveyed by overhead runway tracks to a large and airy cooling room. Suspected carcasses are deployed to the detention room. A feature

of the building is the provision in the windows of the slaughter halls and cooling room of blue glass which acts as a deterrent to flies.

Mr. Peter Young, M.R.C.V.S., has been appointed Meat Inspector and Detention Officer. He attends the slaughter-house daily and inspects all animals before removal.

The Superintendent, who is responsible for the conduct of the business and cleanliness of the premises, resides in a house adjoining the premises.

During the year 4661 animals were slaughtered—814 cattle, 53 calves, 3462 sheep and 332 pigs—as compared with 3714 in 1931. 4803 lbs. of meat as compared with 3163 lbs. in the previous year were condemned and destroyed as unfit for human consumption.

The gut and tripe department of the slaughter-house which is run by the Superintendent gave rise to no cause for complaint.

Concurrently with the opening of the new slaughter-house new Byelaws regulating the conduct of the business came into force. Under these, hours of slaughter are defined and instructions are given regarding the killing and dressing of animals, cleanliness of the premises and apparatus, safeguarding of meat and record keeping. Their observation will go a long way towards preventing contamination of meat and the sale of unsound meat.

Milk Supply.

There are four registered dairy farms and five registered dairy shops in the Burgh. The farm premises were inspected and found to comply reasonably well with the requirements of the County Dairy Byelaws. The animals were examined by the County Veterinary Inspector. With one exception the dairy shops were of good construction and sufficiently equipped. From time to time, samples of milk were collected for analysis and all were found to comply with the legal standard of quality. The average butter fat content of 27 samples was 3.47 per cent., the necessary amount being 3 per cent.

In order to stimulate the production of clean milk, the St. Andrews District Local Committee who are in authority over all the dairy premises in the area decided to hold a Clean Milk Competition in the early months of the present year. Fourteen dairy farmers intimated their willingness to enter and the Edinburgh and East of Scotland College of Agriculture undertook to organise and conduct the competition. Provost Boase who, in 1929 presented two cups for a similar purpose in the Burgh, kindly permitted these cups to be used for this competition.

Great benefit can undoubtedly be derived from these competitions by those who are willing to learn. The influence of faulty structures or bad milking methods on the cleanliness of the milk supply can be demonstrated by the difference in the number of germs in the milk before and after removal or correction. In many instances serious sources of contamination, unsuspected by the dairy farmer, have been brought to light. Since milk is such an important and such an easily infected article of food any measure which tends towards improving its purity and quality deserves every encouragement.

Wester Balrymonth Dairy Farm continued to be the sole producer of Certified Milk in the neighbourhood. Frequent inspection of the premises and apparatus was made and the cows were examined and tested for tuberculosis at regular intervals. No adverse circumstances came to light.

Certified Milk is the only safe milk and it can be obtained in St. Andrews at a cheaper price than in any other place. Nevertheless, only about one in ten gallons of the total amount of milk consumed in the Burgh is Certified. There is room, therefore, for a greatly increased demand. The facts that the Local Authority have for some years now ordained that the City Fever Hospital and the Child Welfare Centre should be supplied with milk of this type only and that the Council of St. Leonards School for Girls have taken a like step in connection with that institution is surely a sufficient indication of the trend of enlightened opinion.

Sale of Food and Drugs Acts.

27 samples of food stuffs and 27 samples of milk were submitted for analysis. All were reported upon favourably except one sample of sausages which was found to be adulterated. The vendor was fined.

FACTORIES AND WORKSHOPS ACTS.

24 visits of inspection were paid to the factories, workshops and workplaces in the Burgh. In two instances Notices under the Public Health Act were served regarding want of cleanliness. In general, however, the premises are maintained in a reasonably satisfactory manner and little cause for complaint arises.

Sanitary Inspector's Office,
Town Hall Buildings,
St. Andrews.

To The Honourable The Department of Health for Scotland, and
the Provost, Magistrates and Councillors of the Royal
Burgh of St. Andrews.

Ladies and Gentlemen,

I have the honour of submitting to you my Third Annual
Report upon the General Sanitary Condition of the Burgh
during the year 1932.

I would again take this opportunity to acknowledge the assist-
ance rendered me by the other officials of the Town Council,
the Medical Officer of Health and the District Sanitary Inspector.

In preparing this report the requirements of the Department
of Health have been kept in mind.

I have the honour to remain,

Ladies and Gentlemen,

Your Obedient Servant,

ALEXANDER H. STEELE.

SANITARY INSPECTOR'S REPORT, 1932.

GENERAL.

The total area of the Burgh is 2211·8 acres, which includes 98·0 acres which was added by the extension of the boundary during the year. The total lengths of streets and lanes is 16·387 miles, made up as follows :—

	Miles.
Class I. roads,	2·50
Class II. roads,	0·94
Unclassified roads,	7·588
Private Streets,	0·90
Public Lanes and Walks,	4·459
Total,	16·387

There are 1280·429 acres of land set aside for Public Parks, Recreation Grounds and Playing Fields.

RAINFALL.

The total rainfall during 1932 was 27·85 inches and the wettest month was October when 6·80 inches of rain was recorded. Rain fell within the Burgh on 181 days, and the heaviest fall in one day was on the 15th May.

TABLE SHOWING DETAILS OF RAINFALL.

Month.	Bruce Embankment.	Pipelands Filters.	Cameron Reservoir.
January	1·78	2·58	1·80
February,	0·20	0·13	0·21
March,	2·61	2·83	3·01
April,	2·56	2·33	2·31
May,	2·94	2·76	3·09
June,	1·29	1·49	1·72
July,	2·65	2·44	3·84
August,	0·45	0·36	0·43
September,	1·53	1·72	2·42
October,	6·80	5·97	7·35
November,	1·52	1·49	1·52
December,	3·52	3·03	4·18
Total,	27·85	27·13	31·88

TEMPERATURE.

There were very few extremes of temperature. The coldest night was February 18th, when the lowest minimum reading, 25 degrees Fahr., was recorded ; the coldest day was March 11th, when the lowest maximum reading was 38 degrees Fahr. ; the warmest day was July 19th, when the reading of the highest maximum was 78 degrees Fahr. and the highest maximum reading during the night was on September 15th, when 62 degrees Fahr. was recorded.

METEOROLOGICAL OBSERVATIONS.

The new meteorological station at the Bruce Embankment operated satisfactorily during the year, and was commented upon most favourably by the Superintendent of the Meteorological Office, Edinburgh, who wrote, "The work is being carried out in an extremely satisfactory manner and that the station as a whole may be considered as being one of the most satisfactory in the British Isles."

During the year there was recorded at St. Andrews a total of 1397·3 hours of bright sunshine compared with 1376·8 hours in 1931. This reading represents the fourth highest reading in Scotland.

Leuchars had 56·5 hours, Inchkeith 46·0 hours and Carnoustie 44·8 hours more bright sunshine than was recorded at St. Andrews. During the whole year the daily mean of hours of bright sunshine at St. Andrews was 3·82, which represents 31 per cent. of the daily possible.

WATER SUPPLY.

The water supply to the Burgh continues to be excellent in quality and abundant in quantity.

At the end of last year five of the twelve filters at Pipeland had been filled with Arran sand, and the work of changing over has been continued during the year, and all filters are now using this filtering medium.

During the testing of the clear water wells, a leak was discovered in the West well at Lower Pipeland. This is the oldest well in the works, and has been in service since about 1874. It is built in rubble with an inner lining of Arbroath slabs on walls and floor. The leak was found to be due to a subsidence in the north end of the floor, which is on made-up ground, and to perished joints in the slabs.

A 3-inch thick reinforced concrete (water proofed) floor was laid on the existing slabs and the wall slabs rendered with three-quarter of an inch of cement plaster. On test, this cure was found effective, and the well is now in a good and serviceable condition.

During the year 99 notices were issued in respect of waste of water and defective fittings.

The close of the year 1931 saw the completion of an inspection of all water fittings within the Burgh area of supply, and it is interesting to note that a total of 2823 houses and premises were visited by the Inspector and a revised list of fittings obtained as follows :—

Baths,	1600	
Wash-hand Basins,	2360	
Scullery Sinks,	3089	
Water Closets,	3399	
Urinals,	124	
		10,572
Screw-down Cocks,	17,445	
Ball Cocks,	4412	
		21,857
		32,439

In the course of the inspection of the premises it was found that 15 service pipes were burst outwith and within the premises and a total of 1046 notices were served on Owners to carry out repairs to defective fittings.

The average consumpt of water per head of the population was 72·56 gallons, and although part of this may be accounted for by the leak in the clear water well, and in considering the number of notices issued in respect of waste and defective fittings I cannot refrain from reaffirming what I said in my last report that the average consumer does not appreciate the fact that in the Burgh water is a manufactured product in the preparation of which, for consumption, has involved considerable expense.

The prevention of waste of water is, in many cases, an unnecessary attention, and the work of inspection is incumbent on the Local Water Authority, and the process of inspection is a very necessary duty to keep the fittings in a sound and efficient state of repair, thereby maintaining a sufficient pressure and supply to all properties in the Burgh and automatically reducing the work necessary in the filtration of the supply, an all important factor to the community in the matter of cost in relation to adequacy and purity.

The following gives the size and length of new mains laid during the year :—

	4 inch.	3 inch.
Priestden Road,	—	207 yds.
Boase Avenue (8th Dev.), .. .	170 yds.	—
	a total of 377 yards of new mains.	

Twenty-seven new connections were made to the water mains during the year, these being made up as follows :—

- 1 connection of 1 inch bore.
- 15 connections of $\frac{3}{4}$ inch bore.
- 11 connections of $\frac{1}{2}$ inch bore.

The new 3-inch main at Priestden Road serves the new houses erected, by Private Enterprise, on both sides of the road, and the new 4-inch main at Boase Avenue serves the 46 houses erected by the Local Authority under the 8th development housing scheme.

The following tables give the Abstract of Monthly Consumpt of water filtered at Pipeland, and the Abstract of Consumpt of water filtered for the years 1912 to 1932.

ST. ANDREWS WATER.
Abstract of Monthly Consumpt of Water Filtered at Pipeland 1932.

Month.	Upper Wells, (10" Meter)	Lower Wells, (10" Meter)	Total Consumpt Gallons.	Pipeland, inches.	Rainfall Cameron inches.
	January,	8,884,000	17,359,000	26,243,000	2.58	1.80
February,	7,420,000	17,172,000	24,592,000	0.13	0.21
March,	6,431,000	19,481,000	25,912,000	2.83	3.01
April	6,419,000	18,433,000	24,852,000	2.33	2.31
May,	6,029,000	15,899,000	21,928,000	2.76	3.09
June,	4,264,000	14,432,000	18,696,000	1.49	1.72
July,	4,660,000	16,542,000	21,202,000	2.44	3.84
August,	4,741,000	16,523,000	21,264,000	0.36	0.43
September,	4,655,000	15,319,000	19,974,000	1.72	2.42
October,	4,806,000	15,409,000	20,215,000	5.97	7.35
November,	4,952,000	15,394,000	20,346,000	1.49	1.52
December,	4,687,000	14,934,000	19,621,000	3.03	4.18
	67,948,000	196,897,000	264,845,000	27.13	31.88

Average consumpt per day, ..	263,835,000	=	725,602.74 gallons.
	365		
" " per month, ..	264,845,000	=	22,070.416 "
	12		
" " per head, ..	264,845,000	=	72.56 "
	365 × 10,000		

ST. ANDREWS WATER.

Abstract of Consumpt of Water Filtered at Pipeland Filters.
Years 1912-1932.

Year.	Total Consumpt.	Average per day.	Average per month.	Average per head.	Cameron, Inches.	Rainfall Pipeland, Inches.	Rain Days.
1912	136,199,500	372,076.72	11,349,958	46.50	..	27.93	180
1913	141,001,700	386,281.75	11,750,141	48.28	..	24.38	172
1914	139,544,700	382,314.24	11,328,725	47.79	..	21.10	180
1915	132,682,500	418,308.22	12,723,541	52.28	..	32.68	185
1916	157,959,700	432,766.30	13,163,308	54.09	43.75	38.85	204
1917	155,841,200	426,962.16	12,986,736	53.37	24.51	20.94	166
1918	156,302,200	428,252.60	13,026,016	53.53	26.81	24.92	177
1919	152,451,400	417,675.06	12,704,283	32.22	30.16	26.52	172
1920	161,043,600	440,009.83	13,420,300	55.00	30.02	26.91	185
1921	157,227,000	429,581.96	13,100,200	47.73	24.42	22.00	156
1922	161,520,900	441,040.71	13,460,075	47.42	24.40	27.23	181
1923	181,272,700	496,637.53	15,106,058	52.83	28.96	27.23	203
1924	178,209,800	486,912.02	14,850,816	51.25	34.10	31.85	185
1925	216,163,400	592,228.42	18,013,616	62.33	30.34	27.05	154
1926	253,879,300	695,556.98	21,156,608	69.55	37.13	34.76	190
1927	229,988,500	630,106.43	19,165,700	63.00	33.58	31.61	188
1928	220,094,900	601,352.18	18,341,200	60.13	37.76	35.36	203
1929	229,477,830	628,706.38	19,123,152	62.87	28.97	24.64	150
1930	240,002,280	657,544.9	20,000,190	65.75	35.45	32.43	177
1931	261,729,352	717,066.72	21,810,779	71.70	36.17	30.75	159
1932	264,845,000	725,602.74	22,070,416	72.56	31.88	27.13	178

One sample of water was procured and submitted for analysis with the following result :—

Free Ammonia,	-006
Albuminoid Ammonia,	-176
Carbonate of Lime, etc.,	100.00
Chlorine,	12.00
Nitrogen, as Nitrates,	0.48
Nitritis,	<i>None.</i>
Hardness, in Clark's Degrees,	7°
Lead, or other Poisonous Metals,	<i>None.</i>

The Analyst's remarks on the sample was as follows :—

“This water has a slight yellow colour (Red .2, Yellow 2.0 Lovibond's Standard) and contains an average amount of sedimentary material. The odour was slight vegetable in nature. A Sedgwick Rafter Plankton did not reveal any life, only a small quantity of vegetable debris was observed.

The yield of free Ammonia is low, that for Albuminoid being moderate in proportion. Saline material is moderate leaving the water comparatively soft. Nitrates are only present in traces, there is therefore no indication of the presence of oxidised contamination. The oxygen absorbed from N/80 Permanganate '4 hours test' is 0.217 parts per 100,000, showing a moderate amount of readily oxidisable organic matter.

The pH value is 7.2 just on the alkaline side of neutrality. The alkalinity to Methyl Orange is equal to 85 parts per million of Calcium Carbonate.

In my opinion this water is fit for drinking and general domestic purposes.”

DRAINAGE.

The drainage system in the Burgh has functioned satisfactorily during the year and no complaints as to flooding were received.

The sewer improvements at Dempster Terrace area commenced last year are completed, and no flooding has since taken place. This sewer was relaid and overflows taken off into the burn at Dempster Terrace Brae and the west side of Dyersbrae Garden. This sewer followed a line round Dyersbrae House, across Greenside Place and through the grounds of St. Leonard's School. It was cut at the south side of Dyersbrae House and laid in a new route down Dyersbrae Drive, across Greenside Place by twin steel pipes and connected to the sewer crossing the new Greenside Place Bridge, which joins the concrete pipe sewer on the south side of the bridge. This route gives a better line and gradient to the sewer. The sewer from Queen's Gardens, which joins the sewer at Dempster Terrace was laid in a new line from the wall at

Queen's Terrace south-east to a manhole in Dyersbrae Garden, joining the main sewer at a better angle than formerly.

A 9-inch storm overflow was constructed from the sewer on the Scores and led to discharge over the cliffs.

These improvements seem to have effected a distinct improvement.

During the year a total of 380 yards of new sewer was laid, this being as follows :—

	12 inch F. C.	9 inch F. C.
Priestden Road,	—	210 yds.
Boase Avenue,	104 yds.	66 yds.
	<hr/>	<hr/>
	104 yds.	276 yds.
	<hr/>	<hr/>

Twenty-six new connections were made to the sewers during the year, these being as follows :—

Kinkell Terrace,	5
Priestden Road,	4
Mount Melville Road,	1
Greenside Place,	1
Middleshad Road,	3
Laundry,	1
Glebe Road,	1
Boase Avenue,	8
Shore,	1
Fleming Place,	1
	<hr/>
Total,	26
	<hr/>

REFUSE DISPOSAL AND CLEANSING.

There has been no alteration in the methods of collection and disposal of refuse and the system of controlled tipping has been continued throughout the year. In addition to the tip at the West Sands two other tips were completed during the year. During the summer months a start was made to secure a tip away from the foreshore, and in February the old dam at Cairnsmill was filled up and sown out. The old gas tank holder adjoining Balfour Place was filled with town's refuse and although complaints were made regarding flies no serious objection was lodged. This tip was quite close to dwellinghouses and the refuse was treated with gas water and carbolic powder to overcome the complaint of flies, and was very successful. The site of the tip was very suitable and was a considerable saving of time to the department. During the filling of the holder brick piers were erected to carry beams for the building and it is now part of a large garage.

The method of street cleaning is as formerly but each year shows an additional length of streets being added to the work of the scavengers. During the year 540 yards of new street was added to the present length ; this being as follows :—

Kinkell Terrace,	..	..	..	340 yards.
Middlesshade Road,	..	..	..	200 ..
				<hr/>
Total,	..	..	..	540 ..
				<hr/>

Boase Avenue (8th development housing) has been excavated and bottomed for a length of 162 yards by 30 feet wide between fences.

Priestden Road has been excavated, bottomed, and part of kerb, channel and footpath laid, for a length of 200 yards, 30 feet wide between fences, with 5 feet 6 inches footpaths.

Middlesshade Road has been completed by the laying of kerb, channels, and tarmac surfacing for a length of 200 yards, 36 feet wide between walls and with 6 feet footpaths.

Kinkell Terrace has been completed by the laying of Tarmac surfacing for a distance of 340 yards ; 30 feet wide between fences, with 5 feet 6 inches footpaths.

In addition to the above there has been added 0.383 miles of roads taken over, for cleansing purposes, for the County Council through the extension of the Burgh boundary, and it is expected that some reorganisation will be necessary, in the near future, with regard to the scavengers districts.

The fouling of the streets and footpavements by dogs has again been very much in evidence, and the Public Health Committee have now taken up the matter with a view to some remedy being found.

A collection of waste-paper from houses, shops and private schools, etc., is undertaken twice per week by the Department. The paper is picked and baled and although the market for waste paper is very poor it saves cause of complaint through burning. The return for baled paper, however, justifies the work and so long as no extra staff is required it should be continued.

Complaints of burning have been received from time to time and the question of a small destructor for burning waste paper and straw has been considered. It was found that the cost of such an erection was out of proportion to the benefit derived and as far as practical burning is restricted so that smoke and smell will not be carried by the wind in the direction of dwelling-houses, and it is hoped that the present arrangements will overcome to a great extent the cause for complaint.

BUILDINGS.

Seventy-six applications were submitted to and approved of by the Works Committee of the Town Council.

The plans submitted may be classified as under :—

Municipal Houses,	46
Private Houses,	14
New Business premises (including University buildings),	2
Alterations to houses,	17
Alterations to business premises,	23
Miscellaneous (garages, sheds, hanging signs, etc.),	19
<hr/>	
Total,	<hr/> 121 <hr/>

Thirty-six houses were erected and passed during the year, as follows :—

- 26 Municipal Houses.
- 4 Non-State-Aided Houses.
- 5 Subsidy Houses.
- 1 House (built by Loan).

—
36 Total.
—

The following table gives the number of new sanitary fittings erected in connection with the foregoing alterations and new buildings :—

- 9 stalls of urinals.
- 47 water closets.
- 20 sinks.
- 15 baths.
- 13 wash-tubs.
- 35 wash-hand basins.

—
139 Total.
—

TESTING OF DRAINAGE AND SANITARY FITTINGS.

The smoke test was applied to the drainage and sanitary fittings of the following properties :—

- Woodburn Laundry (new iron drain and 4 W.C.'s).
- 49 South Street (new drains and sanitary fittings).
- Union Bank of Scotland (new drains and sanitary fittings).
- New Addition—Cottage Hospital (new drain and sanitary fittings).
- 26 Houses in 7th Development of Housing Schemes (drains and fittings).

- Mr. Greig's House, Strathkinness Road (new drains and fittings).
- Mr. Young's House, Middlesshade Road (new drains and fittings).
- Mary Cottage (existing drains and fittings).
- The Cottage, Lade Braes (existing drains and fittings).
- Bungalow, Listvarna (new drains and fittings).
- 5 Dempster Terrace (existing and new drains).
- Shop (Mr. Anderson), Glebe Road (new drains and fittings).
- Madras College (new drains to Boys and Girls conveniences).
- West View (new section of drain and new soil pipe).
- 45 Argyle Street (additional W.C.).
- Nurses Cottage, Child Welfare Centre (new drain and fittings).
- Miss Mark, House, Hepburn Gardens (new drains and fittings).
- St. Leonards School (new drain to Gardener's sheds).
- Kildonan, Links Crescent (new stock of soil and water pipes).
- Mr. Studley's House, Middlesshade Road (new drains and fittings).
- Messrs. Wilson's Garage (new drains to conveniences).
- 7 Queen's Gardens (existing drain and fittings).
- 3 New Bungalows, Kinkell Terrace (new drain and fittings).

Where existing drains were found to be defective the necessary repairs were executed and the work retested, and in all cases the work was found to have been carried through in a tradesmanlike manner.

NUISANCES.

17 complaints of alleged nuisances were received during the year; 15 of these being verbal and 2 written complaints.

7 intimations were issued in terms of Section 19 of the Public Health (Scotland) Act 1897, and numerous verbal intimations were also given with the desired effect. It was not found necessary to take any action under Section 20 of the Act.

During the year trouble was again experienced through persons camping on the East Bents and foreshore. The parties, however, removed on request. There is a proper camping place at St. Nicholas and this is now kept in good order. The proprietor has a list of conditions printed and each applicant for a site is supplied with a copy. A bin has also been provided for litter and ablution benches have been erected.

PUBLIC HEALTH ACTS.

In terms of Section 69 of the Public Health (Scotland) Act 1897, one burial was undertaken at a cost of 7s 6d. This was the body of a female infant. No part of the cost of burial was recovered.

PROVISION OF WATER CLOSETS AND SINKS IN TENEMENTAL PROPERTIES.

In this direction a new list is being compiled as time and opportunity permit.

HOUSING.

At the close of 1931, 56 of the houses forming the 7th Development of the Housing Schemes in the Burgh were completed and occupied, and during the year under review the remaining 28 houses were finished.

At the end of the year the number of houses erected by the Town Council (including 15 houses at Abbey Court and South Street) was as follows :—

Development,	2 rms.	2 rms.	4 rms.	5 rms.	Total.
Abbey Court,	2	..	3	..	5
South Court,	2	2	1	..	5
42 South Street,	3	2	..	..	5
1st Development,	..	20	36	12	68
2nd "	..	32	18	..	50
3rd "	..	36	15	..	51
4th "	24	..	..	..	24
5th "	20	20	10	..	50
6th "	48	..	..	..	48
7th "	20	52	12	..	84
Totals,	119	164	95	12	390

At the completion of the 7th Development the number of applicants for Municipal houses was very small, and it is surprising how the applications fluctuate, for at the close of the year the number of applicants stood at 215; 148 local applicants and 67 applicants from other areas, and the following are the particulars as to applications and size of houses applied for :—

Local Applicants.

2-roomed houses,	..	..	..	..	52
3-roomed houses,	..	..	..	..	77
4 & 5-roomed houses,	..	..	..	..	19
					148

Applicants Outwith Burgh.

2-roomed houses,	..	..	..	..	16
3-roomed houses,	..	..	..	..	32
4 & 5-roomed houses,	..	..	..	..	19
					—
					67
					—

During the year one property containing 2 dwellinghouses was compulsorily closed, but the property has not yet been demolished on account of the difficulty of communication with the joint owners, some of whom are abroad.

No action was taken in respect of the Housing (Inspection of District) Regulations (Scotland) 1928, in regard to any properties, but considerable time was spent in the inspection of the properties at Union Street and Muttoe's Lane, and at the close of the year official representation had been made to the Local Authority for a Slum Clearance Scheme. When this is complete I will deal fully with the properties and number of houses in the Areas.

COMMON LODGING HOUSES.

There are no Common Lodging Houses within the Burgh, and the one House Let in Lodgings is regularly inspected by the Police.

BURIAL GROUNDS.

The burial grounds within the Burgh are well kept and no complaints were received regarding their condition.

Considerable difficulty was experienced in connection with the Cathedral Burial Ground through persons depositing old wreath flowers and cut grass over the cliffs. After consultation with the Inspector from H.M. Office of Works an arrangement was made whereby the Cleansing Department removes the refuse, from a dump within the grounds, when required, and a notice was erected within the entrance gate and this has had a beneficial effect.

BURGH POLICE ACTS.

During the year 76 warrants were granted by the Works Committee of the Town Council, 32 of them being for the erection and alteration to houses, 25 for the erection and alteration to business premises and the remaining 19 being for work of a miscellaneous character.

Seven notices were issued in terms of Section 117 of the Act of 1892, and 33 notices were issued in terms of Section 164 of the Act.

SCHOOLS.

With the exception of the Madras College no action has been taken in connection with any of the schools. Following upon a

report on the sanitary fitments of the Madras College considerable reconstruction of the Boys and Girls conveniences was carried out during the year. The old trough water-closets were removed and a new range of independent "Washdown" water-closets fitted up. Eight new wash-hand basins were also fitted up in the Boys' and Girls' cloakrooms and four independent W.C. were erected in the Kindergarten Department in lieu of a trough closet. A new urinal range was constructed in cement at the Boys' conveniences.

FACTORY AND WORKSHOPS.

Twenty-four visits were made to Factories and Workshops within the Burgh, and only on two occasions was it found necessary to issue notices for the removal of minor defects.

Two intimations were received from H.M. Inspector of Factories and these were attended to.

During the year the drainage in rear of the Woodburn Laundry was reconstructed and 4 water-closets erected for the use of the workers. This drain used to discharge on to the foreshore and the closets used by the workers were pail closets. A new iron drain was laid and the new water-closets connected thereto and connected direct to the low-level sewer at Woodburn Place.

SLAUGHTERHOUSE.

As reported last year, the building of the new Abattoir was completed during the year and is now in full working order. The following notes give an excellent description of the new building :—

Some years ago the Town Council took into consideration the provision of a new Abattoir to replace the present antiquated and delapidated structure situated in South Bridge Street.

Plans and estimates were then prepared for two schemes, namely, that of remodelling and extending the present building, and the erection of an entirely new structure on a virgin site. Nothing however was done then in the matter, but in 1930, after various sites had been inspected and rejected, the Council finally purchased the property known as Maryfield extending to approximately 2 acres including house and buildings, lying between the L.N.-E. Railway and the main road to Largo, on the west side thereof.

The site, which is about 200 yards south of the Burgh Boundary, is an excellent one for the purpose required, being quite near to the Town and yet not too near any dwellinghouses to give cause for objection, whilst the cost of providing water and drainage services was in no way prohibitive, as the sewer came to within

130 yards of the building and the trunk water mains passed the site on their way to the town.

This then was the site on which the new Abattoir, with the assistance of a Government Unemployment Grant, was commenced to be erected on 26th October, 1931, and now stands completed as one of the most modern and up-to-date structures of its kind in the country.

General Layout.

In designing the new Abattoir special attention was given to the Notes on the planning of such structures by the Department of Health, whilst at the same time, keeping in mind the local requirements, the provision of the best and easiest facilities for the slaughtering and handling of the animals, and last but not least, the elimination of every element of cruelty and unnecessary driving of animals to their different lairages.

This then was successfully accomplished, the order of the buildings being so arranged that every process follows directly behind the other, namely storage, slaughtering, cooling, and despatch.

The main building which measures 108 ft. 10 in. square outside, is set back approximately 47 feet from the centre of Largo Road, and is flanked on the south and west by open concrete roadways, the former 12 ft. wide and the latter 20 ft. wide enclosed within 9 in. brick walls. At the north end of the back or west roadway is situated the offal pit with urinal attached, whilst immediately to the west thereof is placed the Mess Room with lavatory accommodation for same.

The main building is divided into 4 bays, the southmost bay being the lairages for live animals, there being 8 pens capable of accommodating 36 cattle, 7 tying-up stalls for bulls, 3 pens to hold 20 sheep, and 6 pens to house 24 pigs, with a collecting and checking pen at the eastmost end through which all the cattle enter direct from the south roadway.

The sheep enter from a 4 feet passage between the tying-up stalls and the pens, whilst the pigs enter by a ramp or high level platform through a door in the west gable. A 6 feet wide passage separated from the pens by a reinforced concrete partition 5 ft. 3 in. high, runs the whole length of the lairage on the south side and divides them from the different slaughter halls.

By a simple arrangement of gates the animals are led to and from the different pens with the least possible trouble and driving. The whole of the pens and stalls are each provided with hay racks and gravity drinking bowls, the latter being fed from a balancing cistern recessed into the outside wall and protected by plate doors. The pigs pens are provided with fireclay feeding troughs, no water being required.

The bay immediately to the north of the lairages, as is to be expected, is given over to the different slaughter halls. At the west end is placed the pig slaughter hall, where the pigs are led direct from the lairage into a pig trap in which they are shot. By the action of a foot lever they are then thrown out of the trap and bled over a gulley protected by a tiled screening wall.

From there they are picked up by a travelling hoist and conveyed into the scalding tank and thence on to the scuttling table where they are dehaired, after which they are hung up on hanging chains until required.

Immediately adjacent to the pig slaughter hall is the main cattle and sheep slaughter hall, a spacious building on the most modern lines of the open slaughter hall type.

It is divided into 6 killing and dressing stations, four of which are served by double acting stunning pens, and the remaining two by a double-way stunning screen and killing post for the slaughter of Highland and horned cattle which cannot be passed through the stunning pens. This section is also used as the sheep slaughter hall, adjustable sheep dressing brackets being placed on the top of the hanging rails serving this section.

The cattle after being shot in the stunning pens and thrown out on to the dressing bed are picked up on cambrels suspended from fixed wall hoists, and after being dressed are transferred to travelling trollies and conveyed to the cooling room.

Hanging rail divisions separate the different killing stations, these being filled in for a height of 2 ft. 6 in. from the floor level with a 6 in. thick double tiled wall with white enamelled cope. Each station is provided with a fixed gut table, while hot and cold water is led to the ends of the division rails.

At the eastmost end of the slaughter hall and entering therefrom is situated the Detention Room, where all suspected carcasses are detained until examined by the Meat Inspector. This room contains a fixed wall hoist, examination table, chopping block, sink with hot and cold water, and steam sterilizer for knives, etc.

The whole of the Slaughter Halls, Detention Room, Covered Passage, and Cooling Room are equipped with Twin Bar runways. The Cattle Slaughter Hall being double tracked for splitting.

After the carcasses are dressed they are conveyed from the Slaughter Halls across a 24 feet wide passage running the whole length of the building into the Cooling Room situated in the northmost bay, which contains the Boiler House, Tripery, Guttery, Hide and Skin Room, and the Superintendent's Office.

The Cooling Room which measures 36 ft. by 24 ft. has 5 rows of runways for the hanging of cattle whilst ample wall hanging

rails are provided for sheep and offal. Inset into the runway track in the Cooling Room is a 1500 lbs. steelyard with reading box fixed on the south wall convenient to the door. The carcasses when required are taken back into the Covered Passage, where they are lowered on to the lorries by a travelling hoist running between the two doorways.

The Guttery is provided with 2 steeping tanks, cutting and finishing tables, whilst the Tripery, which has access both from the Covered Passage and the Guttery, contains 3 plotting tanks, scraping and finishing tables and steeping tanks, also hoof pulling hook and hoof table, the hoofs being plotted in one of the above tanks. Ample wall hanging rails are provided in both the Guttery and Tripery.

The Boiler House at the North West corner contains a 3 feet diameter by 7 feet high vertical, multitubular steam boiler which generates the steam supplying the plotting tanks in the Pig Slaughter Hall and the Tripery, the sterilizer in the Detention Room, and also the tank supplying the hot water, which is situated in this part of the building.

Ample coal storage is allowed for, as also a store for tools and spare plant.

At the North East corner of the building is placed the Superintendent's Office, from which he can see everything entering or leaving the building, whilst any person passing into the Abattoir can do so without entering the office. When the main doors are shut it is impossible to enter the building without passing through the lobby of the Superintendent's Office, which is a great thing in a building of this sort.

Six universal buckets with two detachable chassis are distributed throughout the building for the collection of offal, four being placed in the main Slaughter Hall, one in the Pig Slaughter Hall, and one in the Tripery. Hide, Manure and Ash Barrows of the latest construction are also provided in their respective places.

Details of Construction.

The outside and main division walls between the different bays are 14 in. brickwork, whilst the division walls between the different sections are 9 in. thick, the whole being built with cement.

The front wall of the building and all the front boundary wall and gate pillars are faced with red Withnell facing bricks, with artificial stone dressings, the back and side walls being rough-casted. The walls inside the main Covered Passage are faced for a height of 8 feet with brown salt-glazed bricks, the upper parts being finished with 2 coats Portland and 1 coat Keen's cement plaster.

The inside walls of the Lairages are rendered to a height of 6 feet above the high level floor line with 2 coats of Portland cement highly polished, whilst those of the Tripery, and Guttery and Hide and Skin Room are finished with 2 coats of Portland and 1 coat of Keen's cement with a pure white finish, no wall treatment being required.

6 in. by 6 in. by $\frac{3}{4}$ -in. white enamelled fire clay tiles with blue frieze and cope line the walls of the Pig and Cattle Slaughter Halls, Detention and Cooling Rooms to a height of 8 feet, the upper parts being finished with 2 coats Portland and 1 coat Keen's cement as before, Portland cement skirtings being provided under all tiled walls.

All arrises and junctions of walls with floors are rounded to prevent dirt accumulating and for ease of washing.

The whole of the roof members are of mild steel covered with Turner's Asbestos Trafford tiles. Five rows of asbestos cement louvres run the whole length of the building at the ridge over the Lairage, Slaughter Hall and Cooling Room bays. Hopes patent roof glazing was used throughout, the glass in the Slaughter Halls and Cooling Room being coloured blue as a deterrent to flies. The whole of the lighting is from the north.

The steelwork for runways was designed to carry a load of 15 cwts. per lineal foot.

The drainage of this building was carried out in fireclay pipes, there being 5 lines of drains, running the whole length of the building, one in the south roadway, one in the Lairage passage, one in the Slaughter Halls, and one in the Covered Passage, all collected into a leader drain running along the front of the building and joining a line of drain along the north at the north east corner from where it is led to the main sewer in Largo Road.

Inspection manholes 3 ft. by 2 ft. are placed at each end of each line of drain, the manhole at the north east corner in which is placed the intercepting trap being 4 ft. by 3 ft. Clarks patent gullies with lift out pans are used throughout, whilst a 200 gallons flushing tank (automatic) is placed over the beams in the Pig Slaughter Hall to keep this line of drain free of blood as far as possible.

A 3 in. cast-iron water main was led to within 10 feet of the building and a ball hydrant inserted there for fire purposes. Three $\frac{3}{4}$ -in. connections were then taken off from this point to supply the Lairage, Slaughter Hall, and Cooling Room bays, with control cocks immediately inside the building. The whole of the pipes which are of copper are carried on the roof trusses with connections to the various fittings. Ample facilities for washing are provided, hose cocks being placed in almost each

section, with fixed hose reels in the Pig and Cattle Slaughter Halls hot water and steam are also provided as before described.

The whole of the concrete floors are finished smooth save those in the open and covered roadways which are left rough, all the drain and pipe tracks being formed in sections with Stucco joints for ease of lifting should the occasion arise. Rounded channels 16 in. broad are used for draining the floors towards the gullies, which gives a quick run off when washing down and prevents any lodgment of dirt of any kind within or without the building.

All the lairage divisions are of cast-iron posts with wrought-iron tubular rails, except those of the Pig Lairage and Byre, which are of reinforced concrete, all with wrought-iron sparrs or plate gates to match.

A feature of the Lairages is the insertion in the concrete wall of the main passage of wrought-iron tubular frames through which it is possible to get a full view of the pens without opening the gates.

As is to be expected in a building of this nature one of the main features demanding attention is the ventilation of the different sections. This has been obtained in a manner in which it is hoped to keep the building in a cool and fresh condition without the necessity of causing draughts, five rows of double ventilating louvres having been placed along the full length of the building at the ridge over the Lairage, Slaughter Hall and Cooling Room bays for the extraction of foul air.

Patent exhaust cowl ventilators have also been placed in the roof over the lairage passage directly above the doors leading to the different killing stations to prevent any smell from the Slaughter Halls reaching the animals in the Lairages. Provision has been made for the inlet of fresh air into the Lairages by the insertion of 15 ventilators in the south wall above the animals heads. Copper gauze has also been fixed in the two doors at the ends of the main passage to give a through draught in this section.

As an inlet for fresh air into the Slaughter Halls, Detention and Cooling Rooms, and Covered Passage, the top parts of the doors have been filled in $\frac{1}{2}$ -in. copper mesh, whilst 3 ventilators have been placed at the floor level in the Pig Slaughter Hall to drive the steam accumulating here up through the roof ventilators.

Eight large steel ventilators, 4 at the floor and 4 at the eaves, have been fitted in the north wall of the Cooling Room, whilst the whole of the windows throughout the building have the tops made to open inwards. Circled louvres in the front gable of each bay also add to the ventilation of these different sections of the building.

The buildings are lit throughout with electricity, the wiring and fittings being of the Maconite type, which is the only system suitable for this class of building owing to the dampness of the atmosphere and the fumes given off during the different processes.

The following are the principal contractors who were engaged in the erection of the building, viz. :—

Messrs. J. H. White (St. Andrews) Ltd., St. Andrews, Excavator, Mason and Brickwork.

Messrs. Melville & Thomson, St. Andrews, Carpenter and Joiner work.

Messrs. D. Auchterlonie & Son, St. Andrews, Plumber Work.

P. W. Hutton, St. Andrews, Plaster Cement.

(A. & W. Ingram, Dundee, Sub-Contractors for Tile Work), Tile and Roughcast Work.

William, Greig, St. Andrews, Asbestos Roofing Work.

(Asbestos Cement Building Products, Ltd., Glasgow, Sub-Contractors for Trafford Tiles.)

Messrs. North British Lifting & Moving Appliances Co. Ltd., Glasgow, Plant and Equipment.

Messrs. Fleming Bros., Glasgow, Steelwork.

Messrs. Donald & Smith, Dundee, Glazier Work.

Messrs. H. Hope & Son, Birmingham, Sub-Contractors for Patent Glazing.)

Thos. Bell, St. Andrews, Painter Work.

Messrs. Lowdon Bros., Dundee, Electric Work.

Messrs. R. Hamilton & Son, St. Andrews, Wrought-Iron Railings and Gates.

The estimated cost of the Building was £8500, but it is anticipated that the actual cost will be slightly under that sum.

The plans were prepared by and all the work has been carried out under the supervision of Wm. Watson, Burgh Engineer, ably assisted by Mr. R. S. Brown, Architectural Assistant, who also acted throughout as Clerk of Works.

The new Abattoir was opened on the 5th of October 1932, and the following table gives the number and kinds of animals slaughtered during the year :—

	<i>No. Killed.</i>	<i>No. Stunned.</i>
Cattle ..	814	814
Sheep, ..	3462	3462
Calves, ..	53	53
Pigs, ..	332	134
	<hr/>	<hr/>
	4661	4463
	<hr/>	<hr/>

The following table gives the amount of diseased meat seized and destroyed during the year :—

Cattle.		Sheep.		Pigs.	
Wholly.	Partially.	Wholly.	Partially.	Wholly.	Partially.
—	11	11	2	—	2
235 lbs		505 lbs.	20 lbs.		24 lbs
		784 lbs.			

Table of diseased organs and offal seized and destroyed :—

CATTLE.		
<i>Disease.</i>	<i>Weight.</i>	<i>No. of Seizures.</i>
Liver Cirrhosis, ..	1886	149
Liver Fluke, ..	334	33
Piped Liver, ..	362	44
Cirrhosis and Fluke, ..	578	47
Adhesions, ..	7	1
Piped and Fluked Liver	291	23
Abscess ..	359	29
Tuberculosis ..	12	2
	<hr/> 3829 lbs.	<hr/> 328

SHEEP.		
<i>Disease.</i>	<i>Weight.</i>	<i>No. of Seizures.</i>
Fluked Liver, ..	27	9
Fevered, ..	32	7
Cirrhosis, ..	22	7
Emecation, ..	85	2
Parasite, ..	10	3
	<hr/> 176 lbs.	<hr/> 28

PIGS.		
<i>Disease.</i>	<i>Weight.</i>	<i>No. of Seizures.</i>
Tuberculosis, ..	14	2
	<hr/> 14 lbs.	<hr/> 2

Total weight of all meat, offal and organs seized and destroyed, 4803 lbs. Total number of seizures, 384.

FOOD AND DRUGS ACTS.

Fifty-four samples of Food and Drugs were procured and submitted for analysis ; 53 of these being Official Samples and 1 Test Sample.

The samples taken were as follows :—

Margarine, ..	..	..	..	..	1
Ground Rice,	..	..	..	..	2
Whole Rice,	..	..	..	..	2
Swiss Roll, ..	..	..	..	..	1
Oatmeal, ..	..	..	..	..	1
Oatmeal Pudding,	..	..	..	..	1
Pepper, ..	..	..	..	..	1
Cinnamon, ..	..	..	..	..	2

Cream of Tartar,	..	..	..	..	1
Cocoa,	..	..	..	..	1
Dripping,	..	..	..	..	1
Sausages,	..	..	..	..	5
Farola,	..	..	..	..	1
Atora Beef Suet,	..	..	..	..	1
Sweet Milk,	..	..	..	..	27
Sugar,	..	..	..	..	1
Tea,	..	..	..	..	1
Mince,	..	..	..	..	2
Sliced Sausage,	..	..	..	..	1
Butter (Test),	..	..	..	..	1
					—
Total,	..	..	..	..	54
					—

Of the 54 samples submitted to the Analyst, 27 milk and 26 other food samples were reported upon as being "Genuine," while 1 sample of sausages was reported upon as being "Non-Genuine."

The vendor of this sample was prosecuted and fined £3.

Of the 27 samples of Sweet Milk the average "Fat" content was 3·47, the highest being 4·50 and the lowest being 3·00. The average "Non-Fatty Solids" of the 27 samples was 8·73, the highest being 9·16 and the lowest being 8·50.

The following table prepared by the Analyst gives the average quality of the Milk Supply in the County and Burghs for one year :—

Table Compiled by Andrew Dargie, B.Sc., A.I.C., County Analyst for Fifeshire, showing the average quality of the Public Milk Supply in the County of Fife and Towns within the County for the year 1st November 1931—31st October 1932.

	Non-Fatty		Non-Fatty	
	Fat.	Solids.	Fat.	Solids.
Anstruther ..	3·39	9·00	Kirkcaldy, ..	3·43 8·79
Auchtermuchty,	3·73	8·95	Ladybank, ..	3·68 8·66
Buckhaven, ..	3·37	8·75	Leslie, ..	3·50 8·78
Burntisland, ..	3·59	8·76	Leven, ..	3·58 8·72
Cowdenbeath, ..	3·53	8·76	Lochgelly, ..	3·49 8·77
Crail, ..	3·61	8·78	Markinch, ..	3·70 8·62
Cupar, Fife, ..	3·69	8·66	Newburgh, ..	3·37 8·79
Dunfermline, ..	3·56	8·66	Newport, ..	3·46 8·67
Falkland, ..	3·58	8·79	Pittenweem,	3·66 8·79
Fife County, ..	3·51	8·73	St. Andrews,	3·47 8·73
Inverkeithing, ..	3·40	8·82	Tayport, ..	3·72 8·72
Kinghorn, ..	3·67	8·77		

The Grand Average for the County and Towns is :—

Fat,	3.55 per cent.
Non-Fatty Solids,	8.76 „

Every one-tenth per cent. ($\cdot 10$) difference between 3.55 per cent. and the figure for the average Butter Fat for any place represents a money value of about £8 sterling per annum per thousand inhabitants above or below the average value. Thus, for Kirkcaldy the figure for Butter Fat is $\cdot 12$ per cent. below the average. This represents £9 12s per thousand inhabitants, or £326 8s for Kirkcaldy calculated on a population of 34,000.

UNSOUD FOOD.

During the year the following articles of food were condemned and seized as being unfit for human consumption :—

Two 1 lb. tins of Libby's Peaches.

Eleven $2\frac{1}{2}$ lb. tins of Libby's Peaches.

Two 3 lb. tins of Harris's Chicken and Ham Roll.

One 1 lb. tin of Harris's Chicken and Ham Roll.

INFECTIOUS DISEASE.

Eighty-five notifications of Infectious Disease were notified during the year, and the following table gives the age group of the patients, and the number treated in hospital. :—

Disease.	All Ages	Und'r 1 yr.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-45 yrs.	45-65 yrs.	65 & up.	In Hos.	Not in Hos.
Scarlet Fever, ..	8	..	..	5	2	1	..	..	8	..
Diphtheria, ..	10	..	1	4	2	2	1	..	10	..
Erysipelas	2	..	..	..	..	1	1	..	1	1
Chickenpox, ..	35	..	5	29	1	..	..	..	..	35
Infantile Paralysis, ..	1	..	..	..	1	..	..	..	1	..
Acute Primary										
Pneumonia,	10	1	1	3	1	2	2	1	4	
Acute Influenzal										
Pneumonia,	3	..	..	1	..	..	1	1	1	2
Pulmonary										
Tuberculosis,	12	..	..	1	2	6	2	..	4	8
Non-Pulmonary										
Tuberculosis,	2	..	1	1	..	..	..	..	..	1
Puerperal Pyrexia, ..	2	..	..	..	1	1	..	..	1	1
Totals,	85	1	8	44	10	13	7	2	30	55