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ROYAL BURGH OF ST. ANDREWS

REPORTS

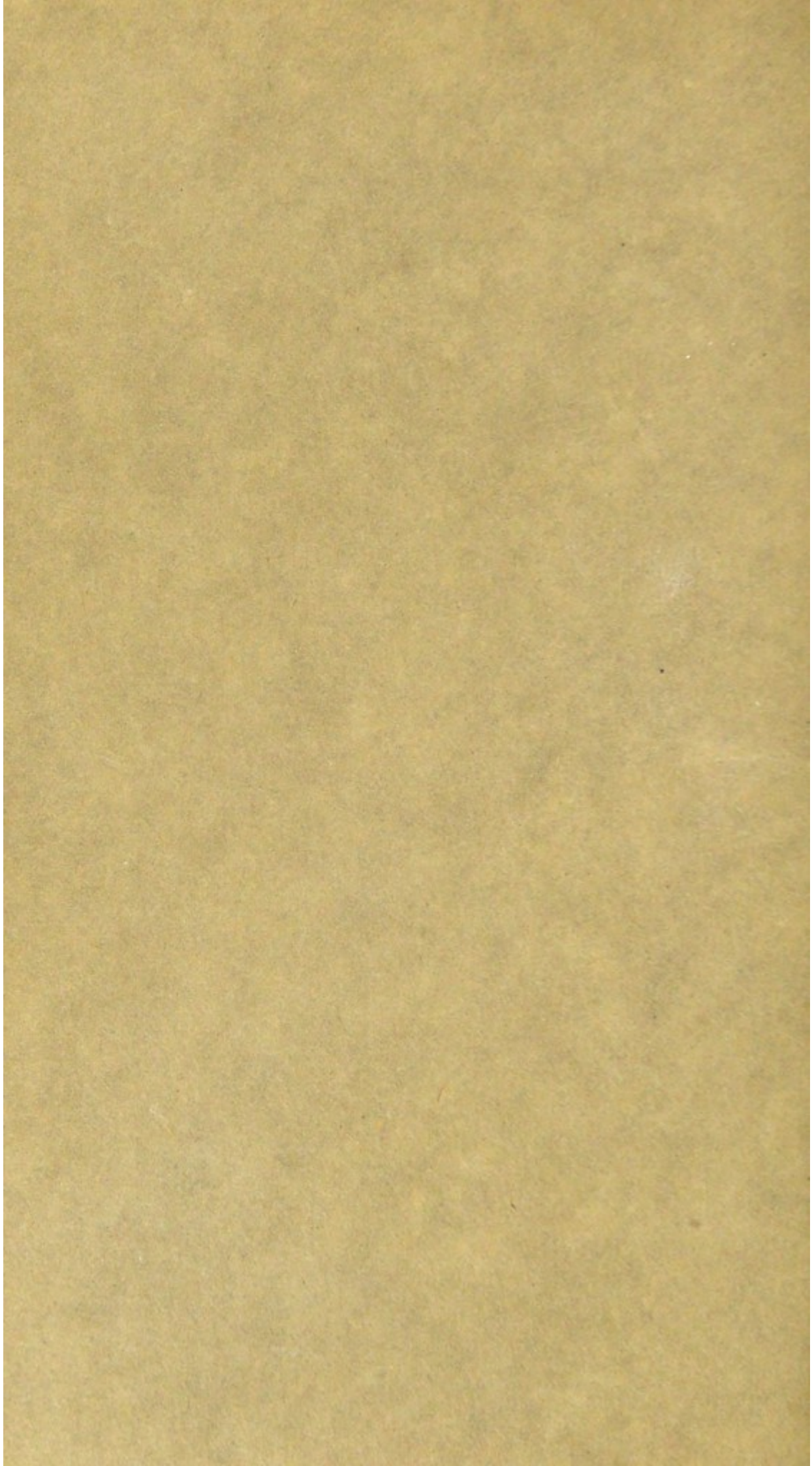
BY

MEDICAL OFFICER

AND

SANITARY INSPECTOR

For the Year 1933



ANNUAL REPORT, 1933.



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SANITARY INSPECTOR

For the Year 1953

ANNUAL REPORT, 1933.

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

Gentlemen,

I have the honour to submit my Ninth Annual Report on the health of the Burgh of St. Andrews.

During the year 1933 the state of health of the Burgh was good. The incidence of infectious diseases was remarkably low considering the epidemic conditions which prevailed in other parts of the County. The general sickness and disability rates were not outstanding.

As has been the case for several years past, the death rate was in excess of the birth rate and there were again slight indications that an increased number of people were dying at an earlier age than previously. The principal disease contributing to this outcome was cerebral haemorrhage. 63 per cent. of the total number of deaths, however, occurred among people of 65 years of age and over.

The Child Welfare organisation established a record in the saving of infant life. The infantile mortality rate was only 11 per 1,000 births, the lowest known recorded figure.

The continued drought gave rise to a certain amount of anxiety concerning the sufficiency of the water supply and appeals were issued to the public for economy in use. The storage capacities of the reservoirs, however, proved equal to demands and no occasion arose for restricting the supply.

Housing matters claimed much attention. A further housing scheme was completed with the primary object of accommodating persons displaced from two Slum Clearance Areas. A survey was commenced of all known insanitary houses in the Burgh and it is possible that notable changes in well-known landmarks may ultimately ensue.

These considerations and others are enlarged upon in the following paragraphs, in introducing which I avail myself of an opportunity of thanking for their assistance and support all those associated with me in the health activities of the Burgh. In particular do I desire to express my indebtedness to Dr. G. Pratt Yule, Chief Medical Officer of Health, Fife County, for much kindly criticism and advice.

I have the honour to be,

Gentlemen,

Your Obedient Servant,

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

June 1934.

Public Health Department,
County Buildings,
Cupar, Fife.

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STATISTICAL COMMENTS.

According to the estimate of the Registrar-General, the population of the Burgh in 1933, was 8,697, an increase of 146 having been allowed for on the estimate of the previous year. This figure does not include the population of St. Leonards School for Girls which is slightly in excess of 500.

During the year there were 90 births—46 males and 44 females—the birth rate being 10·3 per 1,000 of population as compared with 10·9 in 1932. Illegitimate births numbered 2.

The number of marriages registered was 39, the rate being 4·5 per 1,000 of population.

Corrected for transfers, the number of deaths from all causes was 120—50 males and 70 females—the rate per 1,000 of population being 13·9, the corresponding figure for the previous year being 12·9. The death rate exceeded the birth rate by 3·6 per 1,000 of population. An excess of deaths over births has consistently occurred during the past four years.

There was only one death among infants under one year of age, the infantile mortality rate being 11 per 1,000 births. This rate is the lowest that has been recorded since 1914, prior to which no local records are available.

There were three deaths among children in the 1-5 years of age group.

The following were the causes of death :—

Influenza,	2
Other epidemic diseases,	1
Tuberculosis of Respiratory System,	2
Other tuberculous diseases,	2
Other infectious and parasitic diseases,	1
Cancer, malignant disease,	12
Diabetes mellitus,	2
Other general diseases, chronic poisonings,	2
Cerebral Haemorrhage, etc.,	18
Other diseases of nervous system and sense organs,	8
Heart Disease,	28
Other circulatory diseases,	6
Bronchitis,	2
Pneumonia (all forms),	8
Other respiratory diseases,	1
Gastric and duodenal ulcer,	1
Appendicitis,	2
Diseases of the Liver,	2

Other digestive diseases,	6
Acute and Chronic Nephritis,	1
Other diseases of the genito-urinary system,	4
Diseases of skin and locomotor system,	1
Congen. debil., prem. birth, malformation, etc.,	1
Old Age,	3
Suicide,	2
Other violence,	2
	120

Diseases of the heart and arteries were again the principal causes of death, 40 per cent. of the total deaths being due to these as compared with 34 per cent. in 1932.

Cancer was the second chief cause with 10 per cent. as compared with 16 per cent. in the previous year.

Deaths from respiratory diseases showed a slight increase, the percentage rising from 6 to 9 at the end of 1933.

Diseases of the digestive tract caused 9 per cent. of the total deaths.

Deaths from tuberculosis amounted to 3 per cent. only; the corresponding figure in 1932 was 5 per cent.

Infectious diseases, excluding tuberculosis, claimed only 2·5 per cent. of the total deaths, the figure falling from 5 per cent. in the previous year.

Deaths from violence, including suicide, equalled 3 per cent.

With regard to ages at death, 63 per cent. of the people who died were 65 years of age and over. This figure is greater by three than the corresponding figure for the previous year but is still less than that of the average for the past decade. 26 as compared with 24 per cent. of the deaths were in the age group 35 to 64 years, and 7·5 as compared with 11 per cent. in the age group 10 to 34 years. Only 3 per cent. of deaths occurred among children of nine years and under. During the past two years there has been a tendency towards an increased incidence of death among people in the prime of life, more marked among females than among males.

ENVIRONMENTAL CONDITIONS.

Drainage.

No cause for complaint arose in regard to the Burgh system of sewage disposal.

Except for extensions to existing sewers, to meet the needs of housing schemes, no new works were undertaken.

No flooding occurred in the vicinity of the Kinness Burn which was cleaned out regularly.

The screens at the two main sewer outfalls operated satisfactorily. No evidence of pollution of the foreshore with sewage debris was obtained throughout the year.

The expenditure which has been involved in bringing the sewage system up to date has proved well worth while. The nuisances and sources of danger which previously existed have been entirely removed and the indications are that present arrangements will give satisfactory service for many years to come.

Refuse Disposal.

3,835 tons of house, trade and municipal refuse were disposed of during 1933, 3,220 tons having been collected from houses. The total amount is some 200 tons less than that of the previous year.

Refuse disposal presents an annual problem, not so much from the point of view of the methods employed as from that of finding sites for dumping. Controlled tipping, i.e., disposal of refuse in shallow layers covered with a few inches of earth, has done so much to remove the objections to which old-time dumps were liable that the system is now regarded as an economic proposition in that it is becoming a valuable means of land reclamation. Unfortunately, the areas around St. Andrews available for the purpose are so limited in size that a few months tipping is sufficient to fill them in, and an anxious search for new sites is a matter of regular occurrence.

During the year the new site which the Town Council obtained, south-east of the Burgh on the Stravithie highway, was quickly levelled over and resort was made throughout the winter months to the dunes at the West Sands. Thousands of tons of refuse have now been deposited in this region and a stretch of about half-a-mile of sandy, rush grown hillocks has been reclaimed. The time is fast approaching, however, if it has not already arrived, when a decision will require to be reached regarding future dumping at the West Sands. If the artificial, broad stretch of flat land is extended further westwards it is bound to provide an irresistible invitation for the erection of buildings which will result in a revolutionary change in the character and natural environment of the town. If, on the other hand, an endeavour is to be made to retain as much as is possible of the attractive landscape which the town has looked upon for centuries, dumping must cease.

95 tons of waste paper were collected in 1933. Part was baled and sold : part was burned at the old refuse depot at Canongate. Every care was taken to prevent the nuisance occasioned by the odour of burning paper and cause for complaint was lessened. The scavenging staff have instructions to ignite accumulations of refuse only when the wind will carry smoke away from the town, but there were times when best intentions were defeated.

There is still room for improvement regarding the type of receptacle used by many householders for the storage of domestic refuse pending collection. An amazing variety of bins greets the morning, the majority uncovered, their contents scattered by gales of wind or raided by dogs. Under the Burgh Police (Scotland) Act 1892, the Town Council have power to regulate the type of receptacle to be used but legislation should not be necessary. Surely in the interests of the town as a whole citizens would be prepared, when present containers become unserviceable, to obtain a suitable bin concerning the type of which the Sanitary Inspector will be only too pleased to advise.

510 dog licences were issued during the year. The canine population remains remarkably stationary.

In the Report for 1932, reference was made to nuisances created on footways and paths by dogs. The Town Council had the matter under consideration and instructed that notices be posted requesting dog owners to keep their pets under proper control. Some few gave heed to the request but, on the whole, pavements were little less free from fouling. It is probable that the comparatively large number of stray dogs which roam the streets in distant attendance on their owners are responsible to a considerable extent for the offensive conditions. Be that as it may, unless greater improvement takes place the Town Council will require to consider the introduction of Bye-laws to check the nuisance.

Water Supply.

The outstanding matter of interest in connection with the water supply was the effect produced upon its sufficiency by the prolonged drought. Cameron reservoir, which has a total capacity of 220 million gallons, fell to a content of only 30 million gallons. Since about 20 million gallons cannot be used on account of the position of the lower sluices, which have not been opened since the reservoir was constructed, the town was left with about 10 million gallons only—scarcely three weeks supply. Fortunately, the foresight of the Water Committee in retaining Lambielesham Reservoir as a reserve enabled the Water Engineer to supplement

the supply from Cameron, thus tiding over the weeks which intervened before the drought broke.

Throughout the dry spell the amount of water sent into the town was not restricted, although a note of caution was sounded by the Convener of the Water Committee in the local press. Possibly to some extent as a result of this, the average daily consumpt of water per head of population fell to 66·47 gallons—six gallons per day less than the amount for the previous year. No one suffered inconvenience and it was clear that a great many people had been using more water than they really required.

That the town possesses sufficient storage accommodation was a further lesson which the drought served to demonstrate, but the margin of safety cannot be regarded as great, since the population is growing and the number of modern houses is increasing annually. If, however, the leak in the dam at Lambielesham Reservoir were repaired and its sides pitched or concreted, sufficient storage would be secured to meet the needs of the town for the next twenty or thirty years at least.

Once every month the water supply was submitted to bacteriological examination. Samples were taken of tap water and *Bacillus Coli* was found to be absent in 100 c.c. on every occasion except one, when the organism was found to be present in 50 c.c. Other bacteriological tests were equally favourable and chemical analysis also was found to be of a satisfactory nature. Constant care is therefore being taken to ensure that water of a high degree of purity is reaching the town.

These routine examinations are of the greatest value since they afford a means of detecting abnormal variations in bacterial content and thus give warning that a possible source of danger exists.

No new undertakings were carried out at the water works at Pipelands. The primary filters proved of the greatest service in preventing the secondary filters from becoming clogged with large quantities of mud and vegetable debris, thus lengthening their period of usefulness.

Need for investigation arose in connection with the brief appearance, in two circumscribed areas in the town, of fresh water shrimps in the cold water supply. Cause for their presence was not ascertained and the matter is still under investigation.

Atmospheric Conditions.

The chief meteorological features of the year were the deficiency of rainfall, the prolonged periods of sunshine from March till October and the severe cold in the latter part of January.

The sunniest month was June, when there were 245·9 hours of bright sunshine. The total number of hours of bright sunshine for the year was 1539·9—142·6 hours more than the number for the previous year. The figure was the second highest recorded among the twenty-one stations in Scotland.

The warmest month was August and the coldest month was January.

The mean temperature for the whole year was 48·8 degrees F.—about one degree greater than the average temperature maintained over the past ten years.

The driest month was December and the wettest month was October. The total amount of rainfall for the year was 19·02 inches—6·81 inches less than in 1932. There were 104 days in which rain fell as compared with 181 days in 1932.

Readings of ultra-violet radiation were taken 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	0·7	1·0	0·8	0·7	2·1	1·7	1·7	1·3	0·7	0·2	0·2

The average amount of radiation for the year was 0·95. The fact that the previous year, which was characterised by a deficiency of sunlight, gave an average reading of 0·9 raises some doubts as to the accuracy of the observations made. There are certainly grounds for investigation of the apparatus and methods employed.

Housing Conditions.

The eighth housing development, which comprised 40 three-roomed houses and 6 four-roomed houses, was completed during the year. Thirty-two of these houses were erected under the Housing (Scotland) Act 1930, and fourteen under the Housing (Financial Provisions) Act 1924. The total number of houses erected since 1920 is as follows :—

Two-roomed houses,	..	..	..	..	119
Three-roomed houses,	..	..	..	..	204
Four-roomed houses,	..	..	..	..	101
Five-roomed houses,	..	..	..	..	12
Total,	..	..	..	..	436

During the year three houses were erected under Government subsidy—1 with loan and 3 by private enterprise.

Twelve plans relating to the erection of twenty houses were reported on. Reports were also submitted regarding a Ninth

Housing Development. Plans for the alteration and improvement of eleven houses and eight business and other premises were approved by the Local Authority. Permission was given for the erection of two shops and a public convenience. Altogether, 96 minor and major warrants were issued.

Demolition Orders were served in respect of two properties inhabited by five families. Since, however, no alternative accommodation was available and since neither the proprietor nor the Town Council were prepared to take further steps, the Orders have not been enforced. The matter, however, has been noted for necessary action in connection with the future housing programme.

Much progress was made in connection with the Union Street and Muttoes Lane Clearance Scheme. Thirty-two houses in the Eighth Development having been allocated for the accommodation of displaced tenants, the Town Council, proceeding partly by Compulsory Purchase Order and partly by private agreement, acquired all the properties—comprising 44 dwelling-houses, 7 shops, 2 workshops and 1 garage. 174 persons resided in the areas concerned. Of these, 138 were given tenancy of new houses, 14 were decanted and 10 made their own arrangements. There remain 12 persons still to be accommodated. The buildings in Union Street and Muttoes Lane have still to be demolished and it is hoped that by the end of the present year the necessary procedure will have been completed and arrangements made for utilising the cleared sites so that resulting appearances will be in keeping with the ancient architectural characteristics of the town.

Many people will mark with regret the disappearance of these quaint, familiar, old buildings—not the least picturesque of which is the house with double attics, one above the other, at the corner of Market Street and Union Street. Were its features to be reproduced in a new building, some indication at least of the old environment would be retained.

A systematic survey of housing conditions was commenced during the year.

The following number of houses was found to be worthy of procedure under Section 16 of the Housing (Scotland) Act, 1930 (i.e., Demolition or Closure) :—

South Street.—17 properties comprising 30 houses occupied by 111 persons.

Market Street.—9 properties comprising 25 houses occupied by 83 persons.

North Street.—5 properties comprising 11 houses occupied by 35 persons.

South Castle Street.—9 properties comprising 18 houses occupied by 67 persons.

Shorehead.—3 properties comprising 29 houses occupied by 110 persons.

The following number of houses were found to be worthy of procedure under Section 14 of the Housing (Scotland) Act 1930 (i.e., Reconditioning) :—

South Street.—6 properties comprising 10 houses.

Market Street.—3 properties comprising 4 houses.

North Street.—4 properties comprising 7 houses.

To date, therefore, the attention of the Town Council has been directed towards 113 houses occupied by 406 persons which are unfit for habitation and which could not be renovated at reasonable cost. Demolition or closure would be the best method of dealing with these. In addition, 21 houses have been recommended for compulsory reconditioning.

These figures do not represent the total number of defective houses in the Burgh. A survey has still to be made of the greater part of North Street and its offshoots, of Balfour Place and Abbey Street and of several isolated properties. It is estimated that there are about 60 irremediably unfit houses in these areas. The total number of houses in the Burgh which should be the subjects of Demolition or Closing Orders is therefore in the neighbourhood of at least 170.

At the end of the year the Town Council had considered action in respect of only a few of the houses reported upon, having determined to await information regarding housing conditions in the Burgh as a whole. Every endeavour is being made to supply this information as rapidly as possible.

Overcrowding does not present a serious problem but no information of a reliable nature is available regarding the amount which exists. Quite a number of dwellings which have been recommended for demolition are in an overcrowded state, which additional defect, however, would automatically be remedied if the tenants were removed to new houses. The degree of overcrowding which is prevalent in good houses is unknown but an estimated figure of 30 might be regarded as reasonably correct. During the summer months, of course, a great many houses are in an over-populated state as a result of the influx of visitors. So many householders depend upon summer letting as a means of livelihood that remedial action would be difficult to take ; indeed, it is questionable if such would be advisable. This fact is a principal contraindication to the formation of Improvement Area Schemes under which Bye-laws must be enforced regulating the number of persons who may occupy houses.

Sub-letting is not so marked as might be expected among the residential population although during the holiday periods it is, of course, much in evidence. An appreciable number of families reside in furnished rooms. The majority of these, however, are applicants for new houses concerning the number of which a statement is submitted below. Sub-letting as an aspect of housing conditions is usually most seriously reflected among houses which are unfit for habitation or which are tending towards that state. The surveys which have been made of such houses have not brought to light an undue preponderance of sub-letting.

The number of applicants for houses continued to show an increase. At the end of the year the Housing Register contained the following number of applicants :—

	<i>Applicants occupying houses.</i>	<i>Applicants occupying furnished apartments.</i>	<i>Applicants desiring to get married.</i>	<i>Total.</i>
2-roomed houses, ..	26	21	5	52
3-roomed houses, ..	48	26	10	84
4 & 5-roomed houses	14	15	3	32
Total, ..	88	62	18	168

A reasonably accurate indication of **the housing needs of the Burgh** may be obtained by totalling the figures provided in the above paragraphs, viz :—

Number of Insanitary houses,	170
Number of overcrowded houses,	30
Number of Applicants for houses,	168
Total,	378

It is known that some of the applicants for houses reside in dwellings already classified under one or other of the previous categories. Allowing for these and for other contingencies—e.g., old persons who would not be displaced, residing in unfit houses—a figure of between 250 and 300 would not be an over-estimate of the number of houses required.

To meet this need, the Town Council at the end of the year decided to embark upon a Ninth Development of their housing programme which will entail the erection of 54 houses—12 two-apartment, 36 three-apartment and 6 four-apartment houses. A lay-out plan for these has received the approval of the Department of Health.

It is proposed to erect the houses with assistance under the Housing (Scotland) Act 1930 ; that is to say that tenancy will be available only for families residing in unfit houses. It must not be thought, however, that the Town Council are having no consideration for the needs of applicants presently residing in good houses and for the needs of low-wage-earners residing under overcrowded conditions. The claims of these persons are recognised and doubtless they will be offered accommodation in houses erected under previous schemes as vacancies occur. In the meantime, however, the Town Council, since they are of opinion that the terms of the Housing (Financial Provisions) (Scotland) Act 1933, are not sufficiently attractive to enable them to erect houses for this group of individuals, are concentrating upon the provision of dwellings for families living in buildings which are unfit for habitation.

Building Bye-laws.

Consideration was given to the Model Bye-laws prepared by the Department of Health, but no opportunity was found for the preparation of draft Bye-laws suited to the particular needs of the Burgh. If the Town Council undertake procedure against houses which have been recommended for demolition, it is recognised that the resulting situation will require to be governed by more comprehensive regulations than presently exist if cleared sites are to be utilised to the best advantage.

Town Planning.

The need for a Town Planning Scheme has been emphasised in these Reports for several years. Now that the Town Council have taken definite steps towards the clearance of insanitary areas it is all the more necessary that the development of cleared sites should proceed along lines which will be in keeping with an ultimate scheme of town planning. Existing congestion of buildings and narrowness of streets, though doubtless picturesque, are the unhygienic outcome of years of uncontrolled building. As the housing situation improves, opportunities will present themselves which can only be taken advantage of fully under such powers as are afforded by the Town and County Planning (Scotland) Act 1932. The enforcement of this Act is in the hands of the County Council who have authority, however, to delegate their powers when schemes relate solely to land within small burghs. It is strongly advisable, in the future interests of St. Andrews, that the Town Council should acquire authority to direct the progress of building within their boundaries towards a conceived objective.

INFECTIOUS DISEASES.

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

Paratyphoid Fever,	1
Scarlet Fever,	24
Diphtheria,	1
Erysipelas,	1
Acute Primary Pneumonia,	6
Acute Influenzal Pneumonia,	8
Pulmonary Tuberculosis,	3
Non-pulmonary Tuberculosis,	1
Puerperal Pyrexia,	3
	48

In spite of the epidemic of Scarlet Fever which was prevalent throughout the country, the comparative incidence of infectious diseases was low. Scarlet Fever has not been prevalent in the Burgh since 1924 and it was to be expected that an outbreak of considerable proportions would follow the appearance of cases in the local schools. In the Burgh of Cupar, for instance, there were 115 cases during the year. Only occasional cases occurred, however, in St. Andrews, and no indication of epidemic spread followed.

Chickenpox, which had been a notifiable disease for several years following the smallpox outbreaks in Dundee and elsewhere, was not notifiable in 1933.

Accommodation at the City Fever Hospital was taxed to the full on account of the severity of the scarlet fever epidemic in the West of Fife, which necessitated the admission to the hospital of patients from the County generally and the transference of nine St. Andrews patients to other hospitals. 26 St. Andrews patients and 83 County patients were treated in the City Hospital, the average duration of stay being 29·3 days.

The numbers in detail as are follows :—

	Scar- let Fever	Diph- theria.	Prim. Pneu- monia.	Infl. Pneu- monia.	Measles.	Whoop- ing Cough.	Tuber- culosis.	Total.
St. Andrews	15	1	—	7	1	1	1	26
Cupar ..	13	—	—	—	—	—	—	13
Pittenweem	—	—	—	1	—	—	—	1
Landward County ..	10	—	3	1	—	1	—	15
West of Fife	54	—	—	—	—	—	—	54
Total ..	91	1	3	9	1	2	1	109

Two deaths occurred in the Hospital. A woman admitted as suffering from pneumonia died in a few days from cardiac disease. A boy suffering from scarlet fever developed adenitis which resulted in rupture of a branch of the carotid artery. An operation was performed for ligature of the artery but the boy subsequently died.

Several of the scarlet fever patients were severely ill and required careful nursing. Inflammation of glands, developing in the third week of illness was a common complication. Many patients, for about two days after admission, gave evidence of defective functioning of the kidneys. Rheumatic symptoms were not uncommon. Otherwise the complications were:—otitis media, 3; endocarditis, 1; toxæmia, 1; rupture of carotid artery, 1.

The Matron had a very trying year. For long periods she carried on the work of the hospital with insufficient staff, but no patient suffered from lack of attention. To her self-sacrifice and sense of duty many patients owe a great debt and to her nursing skill many owe their lives.

Diphtheria Immunisation.

Immunisation against diphtheria is carried out at the City Fever Hospital by the Matron. No scheme is in force in the town. Propaganda originates for the most part from the hospital, to which visiting relatives are advised to bring their families for protective inoculation. Some two or three hundred children have now been immunised since the process was first advocated but that number is smaller than it should be. Parents are slow to realise that the process is harmless and results in an immunity against the disease which will carry a child safely through the susceptible years of school life and further.

As was pointed out in the Report for last year, not only does immunisation prevent the onset of diphtheria, thereby reducing the death and disability rates which attend that disease, but it also helps to reduce the burden of the taxpayer. The average cost of treatment for a patient suffering from diphtheria in the City Hospital is £12 17s 9d whereas it only costs 2s 5d to prevent a person from contracting the disease. In other words, one case of diphtheria costs as much as the immunisation of approximately 100 children.

Unfortunately, pressure of work and an inadequate staff compelled the Matron to lessen her activities in this direction. Only 14 children received the necessary course of three injections. Since, however, all signs now point to an abatement of the epidemic prevalence of scarlet fever in the County generally, it is intended that the work will be actively resumed.

Disinfection.

It is necessary to make brief reference to the waste of time and of money which attends the use of disinfectants in the control of infectious diseases. The advance of bacteriological knowledge has shown that fluid disinfectants cannot be used with safety in sufficient strength, or applied for a sufficient length of time, to secure the destruction of bacteria. They merely create a smell and engender a false sense of security.

The scarlet fever epidemic has afforded means of testing the efficacy of disinfectants. Some sanitary inspectors have been slow to give up old methods and have continued to spray infected rooms and articles with generous quantities of disinfectant fluid: others have practically ceased to use such preparations. In the areas supervised by the latter, the number of secondary cases of infection has been no greater—in some instances it has been less—than the number in the areas supervised by the former.

The only circumstance in which the use of disinfectants in the control of disease is warranted is in the case of a dirty house, where lavish spraying compels the housewife to clean up the room. Otherwise fresh air, sunlight, soap and water provide means for all the necessary precautions which should be taken.

MATERNAL AND CHILD WELFARE SCHEME.

The maternal and child welfare scheme is operated from the Child Welfare Centre in North Street and the James Mackenzie Institute on the Scores. At the first are seen nursing mothers, infants and children below two years of age; at the second are seen pre-natal cases, children between the ages of two and five years and school children. The premises are well equipped with waiting rooms, consulting rooms, an ailing babies' ward, ante-natal room, laboratories and X-Ray department.

Under this system numerous records have been made of continuous health histories of children from infancy till after school years. These records are being continued in later life by the family doctors. Treatment is confined to advice on hygiene, dieting and nursing care. No medicines are prescribed, all cases of ailment being referred to the family doctors.

Dr. A. Rowand is Medical Officer in charge. The valuable work accomplished by him and by his staff is reflected in the high standard of physical fitness among the juvenile population as a whole.

Births.

Intimation was received of 95 births, 7 of which occurred outside the Burgh. Of these, 19 were attended by doctors in the Memorial

Cottage Hospital, 4 by doctors and private nurses in patients' homes, 33 by doctors and the maternity nurse of the Nursing and Child Welfare Association in patients' homes and 32 by the same nurse alone.

The maternity nurse attended, in addition, 2 confinements outside the Burgh boundaries, under an arrangement made in 1930 which rendered her services available for an area of the surrounding landward part of the County.

There were 2 illegitimate births in the Burgh and 1 outside, which was transferred back. Still births numbered 5, one at the Memorial Cottage Hospital and 4 among patients attended by doctors and midwife together. There was one case of twins.

Infantile Mortality.

Only one death occurred among infants under one year of age the infantile mortality rate being 11 per 1,000 births—the lowest known recorded figure. The cause of death was meningitis and convulsions. The infant had a congenital malformation of the spine (*spina bifida*) which frequently has a fatal outcome.

There were three deaths among children in the 1-5 years age group.

Maternal Mortality.

No deaths occurred as a result of pregnancy. Maternal mortality in St. Andrews is invariably low.

Nursing and Midwives Services.

The St. Andrews Nursing and Child Welfare Association provides nursing and midwifery services for the Burgh. A whole-time registered midwife is employed and during her absence on holiday her work is carried out by a midwife engaged for the time. The County Council Health Visitor, who is in charge of all arrangements, is also a registered midwife, but only for the purpose of emergency duties.

Another member of the outdoor staff is the District Nurse who is engaged in attendance on the sick and in the inspection of school children.

A Baby-craft Nurse is in attendance in the Ailing Babies' Ward at the Centre in North Street.

The excellence of the work done by these nurses merits comment. Their unsparing efforts and their devotion to duty day and night has earned for them the respect of the community.

Calls for medical help were few, viz :—

Delay in second stage,	1
Condition of baby,	1
Non-involution of uterus,	1
Collapse after normal delivery,	1
Ruptured perineum,	2
Total,	6

Home Visitation.

The total number of children under 5 years of age, on the register of the Child Welfare Centre, was 495. Of these, all but 7, who resided 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,	184	1214
1—5 years,	311	564
Total,	495	1778

In addition, the Maternity Nurse of the Association paid the following number of visits to expectant mothers :—

	<i>Number on Register.</i>	<i>Total Visits.</i>
Burgh,	49	587
County,	2	5
Total,	51	592

The total number of home visits paid by the nurses was therefore 2,370.

Infant Feeding.

During the year, 102 babies on the Child Welfare register reached six months of age. Of these, 51 per cent. were entirely breast fed—a considerable fall therefore occurred in the number of breast-fed babies. Figures for the past eleven years are as follows :—

Year	1923	24	25	26	27	28	29	30	31	32	33
Per cent. breast fed,	61	62	63	59	66	62	58	50	59	61	51
Per cent. partially breast fed,	6	16	4	12	8	11	10	15	4	12	11
Per cent. bottle fed,	33	22	33	29	26	27	32	36	36	27	38

That only half the babies in the Burgh are sufficiently breast fed cannot be regarded as satisfactory. The fault appears to lie

with the mothers. Some of them are physically incapable of withstanding the strain of breast feeding and, on health grounds, it is best that their strength should not be overtaxed. Others, however, have obviously given way to a desire to be free from restrictions and at liberty to enjoy social pursuits. For these there is no excuse. They do not appear to appreciate the fact that human milk is the ideal food for infants, providing them with the best possible start in life.

A striking commentary on the value of the work of the nurses was afforded by the increased amount of breast feeding among mothers attended by them. Of the 102 babies, 70 were attended by the maternity nurse and followed up by her. Of these, 60 per cent. were entirely breast fed, 9 per cent. were partially breast fed and 31 per cent. were entirely artificially fed.

Ante-Natal Consultations.

Attendances at the ante-natal clinic at the James Mackenzie Institute were fewer than usual for the reason that there was an increased tendency on the part of general practitioners to carry out examinations along with the maternity nurse in their own consulting rooms. Since the scheme of ante-natal supervision in St. Andrews incorporates all the general practitioners, it is of little moment where patients are seen so long as that precautionary measure is taken. There are not now many mothers in the Burgh who do not undergo adequate examination prior to confinement.

The number of weekly sessions at the James Mackenzie Institute and their duration depends upon the number of patients seen. 14 expectant mothers made 15 attendances. None of them presented abnormalities.

Post-Natal Consultations.

Post-natal consultations are not held. Supervision of mothers and their new born infants is undertaken largely by the maternity nurse under direction, when necessary, of family doctors. 948 visits were paid to 65 cases in the Burgh and 24 visits to 2 cases in the landward part of the County.

CHILD WELFARE CONSULTATIONS.

1. Child Welfare Centre.

Dr. A. Rowand holds two clinics weekly in the Child Welfare Centre, in sessions lasting 2½ hours each. 104 sessions took place,

during which 276 children were examined. The work at the Centre is intended to embrace the supervision of infants up to two years of age only. To suit the convenience of mothers, however, older children are occasionally seen.

The following were the number of attendances :—

(a) Number of children attending—

(i) Under 1 year of age,	182
(ii) 1-5 years of age,	86
(iii) Over 5 years of age,	8
Total,	276

(b) Number of attendances—

(i) Under 1 year of age,	1206
(ii) 1-5 years of age,	326
(iii) Over 5 years of age,	11
Total,	1543

In addition, 119 visits were paid to the nurses at the Centre at times other than those of the doctor's consultation hours.

2. James Mackenzie Institute.

Dr. Rowand held 71 clinics in the Children's Department of the James Mackenzie Institute, each session lasting $2\frac{1}{2}$ hours. These clinics are mainly confined to inspection of pre-school children between the ages of 2 and 5 years. Many parents, however, continue to send their children to Dr. Rowand throughout school life. Continuous records of the health histories of a considerable proportion of the juvenile population have thereby been taken. The important part of these records is that dealing with the pre-school years, for the observation of which most Local Authorities have not been able to organise facilities.

In this part of his work Dr. Rowand has received valuable assistance from Dr. A. S. MacLeod, the Area Medical Officer under Fife County Council. The doctors work in co-operation, information collected by the one being available for the use of the other. In this manner unnecessary reduplication of services is avoided and the official and unofficial schemes are harmoniously blended.

The following tables give an account of the work at the James Mackenzie Institute :—

(a) Number of children attending—

(i) 2-5 years of age,	245
(ii) Over 5 years of age,	131
Total,	376

(b) Number of attendances—

(i) 2-5 years of age,	405
(ii) Over 5 years of age,	189
Total,	594

Observation Nursery.

From the point of view of the saving of infant life, the Ailing Babies' Ward at the Child Welfare Centre is probably the most important part of the whole organisation. To it are brought infants who are not thriving or whose home conditions are such as to make impairment of health inevitable. Both curative and preventive work is therefore carried out. Treatment consists of skilled nursing and regulation of diet. The work demands great patience and self sacrifice on the part of the resident nursing staff since, from time to time, infants are admitted who require constant attention both day and night.

Out-patients and in-patients receive attention. They come from the Burgh and from the St. Andrews and Anstruther Districts of the County. Really remarkable cures have been effected. One has seen an infant carried into the ward in a condition described by medical practitioners as past all hope and has had the joy of witnessing the triumph achieved by devoted nursing when, some five or six weeks later, a healthy thriving baby has been sent home. There have been failures of course, but they have been strikingly few. Dr. Rowand and his nurses fully deserve the grateful esteem in which they are held by many mothers in the East of Fife.

During the year the following number of attendances was made :—

(a) Number of cases received.	Resident.	Non-Resident.
(i) Under 1 year,	5	29
(ii) Over 1 year,	2	0
Total,	7	29

(b) <i>Number of attendances.</i>	<i>Resident.</i>	<i>Non-Resident.</i>
(i) Under 1 year,	221	464
(ii) Over 1 year,	38	0
Total,	259	464
Total number of attendances,		723
Average number of in-patient days,		37
Average number of out-patient attendances,		16

Food and Milk Supply.

On the application of the Health Visitor, the Fife County Council supplied food and milk to 3 nursing mothers and 2 pre-school children.

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

Provision for Maternity Cases.

Private maternity cases are received in the maternity wing of the Memorial Cottage Hospital, which is registered as a Maternity Home under the Midwives and Maternity Homes (Scotland) Act 1927. There are four single-bed wards and a labour ward. The premises are excellently equipped and well maintained.

During the year, 21 confinements took place, all of them with medical attendance. Of these, 6 were instrumental deliveries—3 because of delay in the second stage, 2 because of right occipito posterior presentations and 1 because the patient suffered from a rheumatic condition of the heart. Three of the births were premature. There were no deaths among mothers or infants. There was one still birth.

Cases of difficult or dangerous labour occurring among mothers in necessitous circumstances are transferred to the Maternity Wing, Dundee Royal Infirmary, under the arrangement made by the County Council. Since the closure of the Scores Nursing Home there has been no provision for hospital accommodation of cases of normal labour residing under unsatisfactory or necessitous circumstances. There is a definite need for such accommodation in the Burgh.

Cases of puerperal pyrexia and puerperal fever are transferred to Thornton Infectious Diseases Hospital under the County Council scheme. No cases were transferred during the year, but one case of puerperal pyrexia was admitted to Kings Cross Hospital, Dundee.

Place of the Child Welfare Organisation in the Burgh.

The above paragraphs indicate the nature and extent of the work carried out under the Child Welfare organisation and give a brief account of its successes and shortcomings. It is of importance, however, that some indication should be given of the attitude of the community towards the organisation.

Much light is thrown upon this aspect of the situation by a consideration of the extent to which the resources of the Child Welfare Centre are utilised by the citizens.

Of the 95 births which were intimated at the Centre, 5 were still born, 1 died at 12 days, 4 left St. Andrews in their first month and there was one case of twins. The Centre was therefore aware of the birth of 86 babies, all of them resident in the Burgh. Of these, 79 or 92 per cent. attended the clinics at the Centre. Surely no better testimony to the worth of the organisation could be had than this sign of high appreciation on the part of the populace.

FOOD SUPPLY.

Meat Supply.

The Public Slaughterhouse at Maryfield, which was opened in October 1932 was kept under supervision throughout the year.

Dissatisfaction was expressed regarding the degree of cleanliness which was being maintained and improvement took place on representation of this to the Superintendent.

During the height of summer complaints were lodged regarding "fired" meat. Investigation was made and it was ascertained that, while a certain amount of meat had deteriorated as a result of summer conditions, the amount was no greater than was being encountered elsewhere. There was evidence too that animals had been fed an hour or two before slaughtering.

At the same time it was clear that the temperature in the cooling room was not so low as it should be and that carcasses kept better in the cooler air of the entrance hall. The Burgh Engineer was instructed by the Town Council to report upon measures which would lead to improvement. Various schemes were under consideration at the end of the year.

During the year a petition was received from the butchers using the slaughterhouse, requesting a reduction in charges and an extension of hours for slaughtering. Attention was also directed to other matters. The Town Council, after due consideration, decided that they could not agree to make any changes in the amount of the charges scheduled. They made arrangements, however, for a slight extension and readjustment of hours for

slaughtering. They also intimated their intention of reconsidering the present arrangements regarding the Tripery which is under the charge of the Superintendent.

Meat inspection is a function of the County Council who appointed Mr. Peter Young, M.R.C.V.S., for the purpose. All carcasses are inspected by him before removal from the slaughterhouse.

During the year, 6,139 animals were slaughtered—1,100 cattle, 4,544 sheep, 427 pigs and 68 calves—as compared with 4,661 animals in 1932. 10,151 lbs. of meat were condemned and destroyed as unfit for human consumption as compared with 4,803 lbs. in 1932.

Milk Supply.

There are four registered dairy farms and four registered dairy shops in the Burgh. All the premises were visited from time to time during the year. With one exception their structure complies reasonably well with the County Dairy Bye-laws. One shop was also considered to be below the standard of requirements.

57 cows were accommodated in the four byres. These were inspected by the County Veterinary Inspector on two occasions.

Samples of milk were collected for analysis and all except one were found to comply with legal standards of quality. The average butter fat content of the samples taken was 3.71 per cent., the least permissible amount being 3 per cent.

Ten years ago there were eight dairy farms in the Burgh. The number has now fallen to four and it is likely that a still further decrease in numbers will take place. Dairy farms in interior of the Burgh are not desirable. They tend to be a source of objection to neighbours and are too far removed from pastures to conduce towards the health of the cows. Dairy farms on the outskirts, on the other hand, are not so liable to the same criticisms and are more easily worked. As the community increases in size, however, they become enveloped and sooner or later disappear. Modern means of rapid transport have done much to displace Burghal dairy farms, since dairy farmers in rural areas work under more convenient conditions and can deliver milk at customers' doors at all suitable hours.

Certified milk continued to be sold in the Burgh from Wester Balrymonth Dairy Farm, Mount Melville Dairy Farm and Springfield Dairy Farm. The City Fever Hospital, the Child Welfare Centre and the residential houses at St. Leonards School for Girls are supplied with this milk. There is still room for an increased consumption of Certified milk on the part of private individuals.

Sale of Food and Drugs Acts.

17 samples of food stuffs and 27 samples of milk were submitted for analysis. All were favourably reported upon except one sample of milk which was found to be deficient in fat content.

FACTORIES AND WORKSHOPS ACTS.

43 visits of inspection were paid to factories, workshops and workplaces in the Burgh. In five instances nuisances under the Public Health Acts were found. Remedies were applied in all cases. The conditions under which work is carried on in the Burgh are in general of a satisfactory nature.

Sanitary Inspector's Office,
Church Square,
St. Andrews,

10th April 1934.

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

Gentlemen,

I have the honour of submitting to you my Annual
Report upon the General Sanitary Condition of the Burgh for
the year 1933.

The Report has been prepared in accordance with the require-
ments of the Department of Health.

I have the honour to remain,

Gentlemen,

Your Obedient Servant,

ALEXANDER H. STEELE.

SANITARY INSPECTORS REPORT, 1933.

GENERAL STATISTICS.

Valuation,	£106,381
Census Population (estimated 1933),	8,697
Area of Burgh (to High Water Mark and including Links),	942·2 acres.
Area of Burgh (to Low Water Mark and including Links),	2,211·8 acres.
Number of Dwelling-houses in Burgh (estimated),	2,413
Mileage of Streets—	
Class I. Roads,	3·18 miles.
Class II. Roads,	0·94 „
Unclassified Roads,	7·144 „
Public Lanes and Walks,	4·859 „
	<hr/>
	16·123 miles
Private Street,	1·068 miles.
Private Lanes,	0·214 „
	<hr/>
	1·282 miles
	<hr/>
Total,	17·405 miles

There are 338·129 acres of land set aside for Public Parks, Recreation Grounds and Playing Fields ; made up as follows :—

The Links,	314·86 acres.
Cockshaugh Park,	5·353 „
Kinburn Public Park,	6·682 „
Bassaguard (Children's Playing Field),	1·0 „
Bruce Embankment (Putting Greens, etc.),	5·4 „
Woodburn (Children's Playing Field),	2·834 „
East Bents (Putting Greens, etc.),	2·0 „
	<hr/>
	338·129 acres.

METEOROLOGICAL OBSERVATIONS.

The meteorological station at the Bruce Embankment operated satisfactorily during the year. The equipment of the station consists of the following instruments :—

Mercury Barometer—Kew Pattern—(situated in Putting Green Pavilion) 20·05 feet above Ordnance Datum.

Dry Bulb Thermometer.	} In Screen.
Wet Bulb Thermometer.	
Maximum Thermometer.	
Minimum Thermometer.	

Rain Gauge—Snowdon pattern.

Grass Minimum Thermometer—Terrestrial Radiation.

Earth Thermometers—1 foot and 4 feet below the surface of ground.

Campbell-Stokes Sunshine Recorder—112 feet above Ordnance Datum (placed at Kinburn).

Temperatures.

During 1933 the coldest night was 25th January, when the lowest minimum reading, 19 degrees Fahr., was recorded, the coldest days were 18th, 21st, 26th, and 27th January, when the lowest maximum readings were 35 degrees Fahr., the warmest day was 3rd July, when the reading of the highest maximum was 86 degrees Fahr., and the highest minimum during the night was on 3rd August, when 63 degrees Fahr. was recorded.

Rainfall.

	1933.	1932.
Total Rainfall for the year, ..	19.02 in.	27.85 in.
Heaviest Rainfall (October),	2.69 in. (October)	6.8 in.
Driest Month (December), ..	0.97 in. (February)	0.20 in.
Heaviest Rainfall in One Day (7th October), ..	0.87 in. (15th May)	0.984 in.
Number of Rainy Days, ..	104 days.	181 days

TABLE SHOWING DETAILS OF RAINFALL.

Month.	No. of days with 1 mm. or more.	Bruce Embankment.	Pipeland Filters.	Cameron Reservoir.
January, ..	7	2.13	1.75	2.21
February, ..	11	1.77	1.62	1.94
March, ..	5	1.11	1.26	1.30
April, ..	6	1.24	0.96	1.53
May, ..	11	1.09	1.21	1.63
June, ..	8	1.43	1.00	1.72
July, ..	12	2.48	1.95	2.89
August, ..	9	1.02	0.87	1.01
September, ..	5	1.31	1.56	2.28
October, ..	8	2.69	2.98	3.22
November, ..	12	1.78	1.78	1.96
December, ..	10	0.97	1.11	1.41
Total, ..	104	19.02	18.05	23.10

Sunshine.

	1933.	1932.
Total sunshine for the year, ..	1539·9 hrs.	1397·3 hrs.
Most sunshine in one month (June)	245·9 hrs.	(June) 213·7 hrs.
Least sunshine in one month (Dec.)	32·6 hrs.	(Dec.) 35·1 hrs.
Percentage of possible sunshine for the year,	34	31.

The following table gives the daily Mean Hours of Sunshine and the total hours of bright sunshine for each month during 1933.

Month.	Daily Mean Hours of Bright Sunshine.	Total Hours of Bright Sunshine.
January,	2·17	67·2
February,	3·38	94·7
March,	5·31	164·5
April,	4·55	136·4
May,	3·96	122·8
June,	8·20	245·9
July,	6·39	198·0
August,	6·63	205·4
September,	4·90	146·9
October,	2·70	83·8
November	1·39	41·7
December,	1·05	32·6
<hr/>		
Total,	(Average) 4·22	(Total) 1539·9

The Meteorological Office record that the year was exceptionally sunny over most of the British Isles. Over most of Scotland the year's total did not greatly exceed the normal, but over the British Isles generally the total sunshine for the four months—June to September—exceeded that of any four consecutive months since 1911.

The following table gives the total hours of bright sunshine at various Scottish stations during the year.

Arbroath	1551·2 hours.
St. Andrews	1539·9 hours.
Berwick-on-Tweed	1533·5 hours.
Carnoustie	1471·5 hours.
North Berwick	1457·0 hours.
Aberdeen	1405·6 hours.
Ayr	1374·6 hours.
Prestwick	1305·7 hours.
Rothesay	1235·7 hours.
Oban	1188·4 hours.

WATER SUPPLY.

No change has taken place in the water supply arrangements. In spite of an abnormally dry year the usual supply of water has been maintained without restrictions. The continuance of the drought throughout the winter, however, has prevented the reservoir being restored to its normal winter level.

On 31st December, 1932, Cameron Reservoir was overflowing at its Top Water Level of 20 feet ; and on 31st December, 1933, the level of the reservoir was 13 ft. 6 in. or 6 ft. 6 in. below Top Water Level.

The average consumpt of water per head of the population was 66·47 gallons per day, a reduction of 6·09 gallons per head compared with 1932 when the consumpt was 72·56 gallons per head per day. This reduction is no doubt due, in large measure, to the appeal of the Town Council for the prevention of waste and the repair of defective fittings during the drought.

771 yards of new water mains were laid during the year, as follows :—

3-inch diameter main at Guard Bridge Road, ..	383 yards
3-inch diameter main at Bow Butts,	130 yards
$\frac{3}{4}$ -inch diameter lead pipe at Strathkinness Road,	258 yards
	771 yards

The $\frac{3}{4}$ -inch lead pipe was laid from Rufflets to Newton Bank and Carron Lodge, and is a special supply outwith the Burgh.

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

2 connections of 1 inch bore.
12 connections of $\frac{3}{4}$ -inch bore.
8 connections of $\frac{1}{2}$ -inch bore.

During the year 115 notices were issued by the Water Department in respect of waste of water and defective fittings.

The following tables give the Abstract of Monthly Consumpt of water filtered at Pipeland, and the Abstract of Consumpt of water filtered at Pipelands for the years 1912 to 1933 :—

ST. ANDREWS WATER.
Abstract of Monthly Consumpt of Water Filtered at Pipeland 1933.

Date 1933.	Upper Wells (10" Meter)	Lower Wells. (6" Meter)	Total Consumpt Gallons.	Pipeland.	Rainfall Cameron inches.	Met. Station
January,	4,675,000	15,008,000	19,683,000	1.75	2.21	2.13
February,	4,170,000	14,025,000	18,195,000	1.62	1.94	1.77
March,	4,493,000	15,066,000	19,559,000	1.26	1.30	1.11
April	4,349,000	14,447,000	18,796,000	0.96	1.53	1.24
May,	4,575,000	15,233,000	19,808,000	1.21	1.63	1.09
June,	4,514,000	15,791,000	20,305,000	1.00	1.72	1.43
July,	18,708,000	3,085,000	21,793,000	1.95	2.89	2.48
August,	21,883,000	..	21,883,000	0.87	1.01	1.02
September,	20,574,000	..	20,574,000	1.56	2.28	1.31
October,	20,001,000	834,000	20,835,000	2.98	3.22	2.69
November,	17,591,000	3,355,000	20,946,000	1.78	1.96	1.78
December,	17,086,000	3,155,000	20,241,000	1.11	1.41	0.97
	142,619,000	99,999,000	242,618,000	18.05	23.10	19.02

Average consumpt per day, ..	242,618,000	=	664,706.85 gallons.
	365		
" " per month, ..	242,618,000	=	20,218,166.66 "
	12		
" " per head, ..	242,618,000	=	66.47 "
	365 × 10,000		

ST. ANDREWS WATER.

Abstract of Consumpt of Water Filtered at Pipeland Filters.
Years 1912-1933.

Year.	Total Consumpt.	Average per day.	Average per month.	Average per head.	Cameron. Ins.	Rainfall Pipeland. Ins.	Met. Stat. Ins.	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
1933	242,618,000	664,706.85	20,218,166	66.47	23.00	18.05	19.02	150

I am indebted to Mr. Wm. Watson, Burgh Engineer, for the foregoing tables, and information regarding the water supply.

DRAINAGE.

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

One hundred yards of new sewer was constructed during the year. This sewer takes drains from the Ladies' and Gentlemen's Shelters at the Step Rock Bathing Pond, and allowed for the construction of sanitary conveniences in these buildings.

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

Baker Lane,	..	..	..	..	1
Gregory Lane,	..	..	..	..	1
Glebe Road, ..	..	..	..	..	1
Kinnessburn Road,	..	..	..	..	2
Middleshade Road,	..	..	..	..	2
Priestden Road,	..	..	..	..	3
Strathkinness Road,	..	..	..	..	1
Step Rock Bathing Pond,	..	..	..	..	2
Union Lane,	..	..	..	..	2
					<hr/>
			Total,	..	15
					<hr/>

REFUSE DISPOSAL AND CLEANSING.

No alteration in the method of refuse collection has been made, and the system of controlled tipping for disposal has been continued throughout the year.

The tip on the West Sands was discontinued during the summer and a tip opened in the hollow of a field on the farm of St. Nicholas, adjoining the Stravithie Road, and this tip served throughout the summer. A start was made with a tip on the farm of Allanhill on the Grange Road, but this tip was discontinued at the beginning of the winter, and a start was made to fill hollows among the sand dunes adjoining the Bathing Shelter on the West Sands, and this will be continued until the Spring, when it is hoped to restart at Allanhill.

The method of street cleansing is as formerly, and during the year an additional 162 lineal yards of street at Boase Avenue was taken over by the Department for cleansing purposes. This street, which serves the 8th Development of Housing, has been completed with Tarmac surface and footpath.

BUILDINGS.

Applications submitted to and approved of by the Works Committee of the Town Council may be classified as under :—

Private Houses,	18
New Business Premises,	4
Alterations to Houses,	15
Alterations to Business Premises,	24
Miscellaneous (Garages ; Sheds ; Signs, etc.),	35
Total,	96

Fifty-three houses were erected and passed during the year, as follows :—

- 46 Municipal Houses (8th Development).
- 3 Subsidy Houses.
- 1 House built by Loan.
- 3 Non State-Aided Houses.

—
53 Total.
—

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

- 21 stalls of urinals.
- 87 water closets.
- 77 sinks.
- 65 baths.
- 82 wash-hand basins.
- 56 wash tubs.

—
388 Total.
—

TESTING OF DRAINAGE AND SANITARY FITTINGS.

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

- 46 houses at 8th Development of Housing Scheme (new drains and sanitary fittings).
- Stables, Balfour Place (new drains and sanitary fittings).
- Mavishaugh (existing drains and sanitary fittings).
- 3 Bungalows, Priestden Road (new drains and sanitary fittings).
- 1 Bungalow, Kinkell Terrace (new drains and sanitary fittings).
- 2 Bungalows, Middleshade Road (new drains and sanitary fittings).
- House, Strathkinness Road (new drains and sanitary fittings).
- University Hall (section of new iron drain).

Castlelea (existing drainage and sanitary fittings).
 Golf School Pavilion (new drainage and sanitary fitting).
 McArthur's Tea Rooms (new drains and sanitary fittings).
 New Golf Club (new drains).
 University Pavilion (new iron and fireclay drains).
 Fire Station (new iron drain).
 Northcliff (existing drains and sanitary fittings).
 Cairnbank (section of new drains and sanitary fittings).
 St. Nicholas Cottages (new drains and sanitary fittings).
 The Better 'Ole (section of new drain and sanitary fittings).
 Ladies' Convenience, Church Square (new iron drain).
 19 South Street (new iron and fireclay drains).
 9-11 North Street (new drains and soil pipes).
 Radio House, South Street (section of new drains).
 Reading Room, Gregory Lane (new drains and sanitary fittings).

Where existing drains were found to be defective the necessary repairs were executed and the work re-tested.

HOUSING.

At the end of the year the number of houses erected by the Town Council (including 15 reconditioned houses at Abbey Court and South Street) was 436. Of this total there are 119 houses of 2 apartments 204 houses of 3 apartments; 101 houses of 4 apartments; and 12 houses of 5 apartments.

The first step taken by the Town Council for the provision of houses was in 1919, when the purchase of an unoccupied residential house in the centre of the town was made, followed by renovation and altering the same to give the following accommodation:—

4 houses of four-apartments.

4 houses of three-apartments.

7 houses of two-apartments.

The subsequent progress achieved is summarised in the following table :—

Development.	Year.	2 apts.	3 apts.	4 apts.	5 apts.	Total.
First (Renovation)	1919	7	4	4	—	15
First, ..	1921	—	20	36	12	68
Second, ..	1924	—	32	18	—	50
Third, ..	1925	—	36	15	—	51
Fourth, ..	1926	24	—	—	—	24
Fifth, ..	1927	20	20	10	—	50
Sixth, ..	1929	48	—	—	—	48
Seventh, ..	1932	20	52	12	—	84
Eighth, ..	1933	—	40	6	—	46
Total, ..	—	119	204	101	12	436

In comparison to the above the following table gives the number of dwelling-houses erected by Private Enterprise—with State Assistance—during the past 10 years :—

Year.	3 apts.	4 apts.	5 apts.	Total.
1924	1	—	—	1
1925	3	—	—	3
1926	1	—	1	2
1927	—	—	2	2
1928	—	2	—	2
1929	1	—	—	1
1930	—	3	—	3
1931	—	2	—	2
1932	1	4	—	5
1933	1	2	—	3
Total	8	13	3	24

In addition to the above there have been a number of houses erected for owner-occupier without any assistance, and a few houses built by means of Loan for the Local Authority, and in addition there has been a number of houses built outside the burgh boundary which were included in the burgh extension of last year. Particulars of the latter have not been available, but it would seem as if we need not look to private enterprise in solving the housing problem.

The Eighth Development of the Housing Scheme was completed and occupied during the year. Of the 46 houses erected 14 were under the Housing Act of 1924, the remaining 32 houses being the first development carried out in connection with the re-housing of tenants from a Slum Clearance Area in terms of the Housing Act 1930.

During the year 21 houses were inspected, 18 of which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation. Notices respecting five dwelling-houses were issued in terms of Section 16 (1) of the Housing (Scotland) Act 1930. Demolition has not yet been carried out as only one of the occupants of the houses has secured alternative accommodation.

SLUM CLEARANCE.

As reported in my last annual report official representation was made to the Town Council, at the end of 1932, for a Slum Clearance Scheme. During the year 32 houses of the Eighth Development were erected for the dispossessed tenants and a total of 162 persons out of 174 persons in the area were removed and the houses closed. The whole of the properties in the Clearance Area were acquired by agreement and the necessity of an Inquiry was obviated.

The Clearance Scheme includes two areas, namely: Muttoes Lane, and Union Street Areas, particulars of the dwelling-houses being as follows:—

Muttoes Lane Area.

- 94 North Street—Two one-roomed houses and two two-roomed houses.
 11 Muttoes Lane—Two one-roomed houses and one two-roomed house. Garage.
 10 Muttoes Lane—One three-roomed house.
 9 Muttoes Lane—One three-roomed house.
 7 Muttoes Lane—Two two-roomed houses.
 6 Muttoes Lane—Two two-roomed houses.

Union Street Area.

- 67, 65, 63, 61 and 59 Market Street.—Eight two-roomed houses, one three-roomed house, office, workshop and three shops.
 57 and 55 Market Street—2 and 4 Union Street.—Six two-roomed houses; shop and office.
 6a, 6 and 8 Union Street.—One three-roomed house. One one-roomed house; store.
 10 Union Street.—Four two-roomed houses.
 14 and 16 Union Street, 74 North Street and 1 and 2 Union Lane.—Two one-roomed houses; four two-roomed houses; One three-roomed house; One four-roomed house.
 12 Union Street.—One five-roomed house. (This is the only dwelling-house in the area which is in all respects fit for human habitation.)

It will be observed from the above that the total number of houses to be demolished is 42, made up as follows:—

(a) One-apartment houses,	..	..	..	7
(b) Two-apartment houses,	..	..	..	29
(c) Three-apartment houses,	..	..	..	5
(d) Four-apartment houses,	..	..	..	1
				—
Total,	..	..	..	42
				—

The number of separate families in the houses to be demolished is 49, viz:—

(a) Eight families of one person,	..	..	8
(b) Fourteen families of two persons,	..	..	28
(c) Six families of three persons,	..	..	18
(d) Seven families of four persons,	..	..	28
(e) Six families of five persons,	..	..	30

(f) Three families of six persons,	..	..	18
(g) One family of seven persons,	..	..	7
(h) Three families of eight persons,	..	..	24
(i) One family of thirteen persons,	..	..	13
Total,			<hr/> 174

Of the 174 persons in the Areas 138 persons, comprising 27 families, were removed direct to the rehousing scheme, 7 families comprising 14 persons "decanted"; 7 families, comprising 10 persons, made their own arrangements and 4 families, comprising 12 persons, have still to be provided for. Thus 162 units have been dealt with in terms of the Housing Act 1930, and the remaining 12 will be offered accommodation in the Ninth Development of the Housing Scheme, at present in course of erection.

No definite action has been taken regarding the demolition of the properties meantime, as there are a number of shops which cannot be vacated at the moment. Notices of removal have been served and it is expected that demolition of the property will be carried out as soon as possession of the entire properties can be got.

No decision has been arrived at as to the utilisation of the cleared sites, and it is to be hoped that the Town Council will themselves develop the areas, and thus have complete control of the buildings or other development of the cleared areas.

The closing of unfit houses in various parts of the Burgh, and the transfer of tenants to rehousing schemes, results in large areas being covered with houses of a type which provides wide air-space, free access of sunlight and good gardens, but the benefits may entail certain disadvantages. To offset the new houses on the outskirts of the Burgh there may be a danger of empty and derelict houses which have been condemned and closed, being left standing, and a new method of block clearance should be undertaken.

In the Burgh, provision has already been made for the tenants in the Clearance Area and it should now be possible to arrange to erect buildings on the cleared site to be allocated to families from the block of houses next chosen for clearance. It is to be remembered, however, that the number of houses in a rebuilt area would be considerably less than under slum conditions and in each case a surplus of families would require to be accommodated elsewhere.

COMMON LODGING HOUSES.

There are no Common Lodging Houses within the Burgh, and the one House Let in Lodgings is well conducted.

BURGH POLICE ACTS.

During the year 96 warrants were granted by the Works Committee of the Town Council, 18 for the erection of private houses ; 4 for new business premises ; 15 for the alteration to dwelling-houses ; 24 for the alteration of business premises and 35 for work of a miscellaneous character. Four notices were issued in terms of Section 117 of the Act of 1892, and six notices were issued in terms of Section 164 of the Act. One prosecution was undertaken by the Police, this being the case of a man depositing rubbish over the cliffs at the harbour. The accused pleaded guilty and was admonished.

SCHOOLS.

No action has been taken in connection with any of the schools in the Burgh.

FACTORY AND WORKSHOPS ACT.

Forty-three visits of inspection were made to Factories and Workshops within the Burgh, and only on five occasions was it found necessary to issue notices calling for the removal of minor defects.

One Notices of Occupation was received from H.M. Inspector of Factories ; also two complaints as to the condition of two workshops, and one notice regarding the lack of water-closet accommodation at a workshop.

All these notices received attention. The inspections carried out were as follows :—

Inspections—

Factories,	23
Workshops,	17
Workplaces,	3
	—
Total,	43
	—

Defects found—

Want of Cleanliness,	3
Other nuisances,	2
	—
Total,	5
	—

SLAUGHTERHOUSE.

The new Slaughterhouse continues to be well managed by Mr. Thomas Kennedy, Superintendent, and the following particulars are compiled from records kept by him.

The number of animals slaughtered during the year was 6,139 compared with 4,661 in 1932. These are classified as under :—

Cattle	..	..	..	..	..	1100
Calves,	..	..	..	..	..	68
Sheep,	..	..	..	..	..	4544
Pigs,	..	..	..	..	..	427
Total,						6139

Diseased meat seized and destroyed.

Cattle.		Sheep.		Calves.		Pigs.	
Wholly.	Partially.	Wholly.	Partially.	Wholly.	Partially.	Wholly.	Partially.
13	13	5	20	—	1	1	3
Weight.							
8100	1477	276	94	—	39	112	53
Total weight in lbs.							
9577		370		39		165	

The total weight of diseased meat seized and destroyed was 10,151 lbs. and the number of seizures was 56.

Table of diseased organs and offal seized and destroyed :—

CATTLE.			
<i>Disease.</i>		<i>Weight in lbs.</i>	<i>No. of Seizures.</i>
Liver Cirrhosis,	.. ..	3463	267
Liver Fluke,	.. ..	655	50
Fluke and Cirrhosis,	.. ..	2110	150
Piped Liver,	.. ..	28	2
Abscess,	.. ..	380	27
Tuberculosis,	.. ..	914	12
Liver Parasite,	.. ..	36	2
Total		7586	510
SHEEP.			
<i>Disease.</i>		<i>Weight in lbs.</i>	<i>No. of Seizures.</i>
Liver Fluke,	.. ..	45	16
Tuberculosis,	.. ..	25	4
Abscess,	.. ..	24	6
Cirrhosis,	.. ..	12	2
Total		106	28
PIGS.			
<i>Disease.</i>		<i>Weight in lbs.</i>	<i>No. of Seizures.</i>
Parasitic Liver,	.. ..	3	1
Tuberculosis,	.. ..	28	2
Total		31	3

The total weight of diseased organs and offal seized and destroyed was 7,723 lbs. and the number of seizures 541.

The total weight of condemned meats, etc., and the number of seizures is thus :—

Meat	..	10,151 lbs.	Seizures,	..	56
Offal, etc.,	..	7723 lbs.	Seizures,	..	541
		<hr/>			<hr/>
Total,	..	17,874 lbs.	Total,	..	597
		<hr/>			<hr/>

7 tons, 19 cwts., 2 qrs., 10 lbs.

The following table gives the number of animals slaughtered in the slaughterhouse during the past eight years :—

Animals.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	Total.
Cattle ..	608	646	595	726	772	729	814	1100	5990
Sheep ..	1695	2109	2778	2698	2550	2640	3462	4544	22,476
Calves, ..	83	65	60	61	58	76	53	68	524
Pigs, ..	118	180	264	251	246	269	332	427	2087
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total ..	2504	3000	3697	3736	3626	3714	4661	6139	31,077
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

NUISANCES.

Fourteen complaints of alleged nuisances were received during the year ; 11 of these being verbal and 3 written complaints.

These complaints were investigated and the necessary action taken. Altogether 6 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. No action was taken under Section 20 of the Act.

During the year the Public Health and Cleansing Committee considered the question of the fouling of footways by dogs, and pending the adoption of a bye-law, agreed to exhibit printed notices throughout the Burgh and to insert a paragraph in the local newspaper. These duly appeared but little improvement has been effected and the prosecution for a penalty under a bye-law appears to be the only remedy to effect a needful improvement. When one realises that in St. Andrews there is one dog to every 18 of the population, or approximately 500 dogs within the Burgh, the problem of the fouling of footways may be more readily understood.

A copy of the following notice was posted on lamp pillars throughout the Burgh, regarding the fouling of footways by dogs :—

ROYAL BURGH OF ST. ANDREWS.

Dogs.

“ The Provost, Magistrates and Councillors of the Royal Burgh of St. Andrews urgently request that all persons who are in charge

of dogs in any street or public place shall prevent their dogs from depositing their excrement upon the public footways.

The Town Council earnestly trust that all owners of dogs will co-operate with them in this matter.

By Order."

The following paragraph appeared in the *St. Andrews Citizen* :—

NUISANCES CAUSED BY DOGS.

"The St. Andrews Town Council intend shortly to apply for a Bye-law to prevent nuisances by dogs, and in the meantime they are putting up notices requesting that all persons in charge of dogs in any street or public place will prevent their dogs from depositing their excrement upon the public footways.

The Town Council earnestly trust that all owners of dogs in St. Andrews will co-operate with them in putting a stop to this nuisance, which has been the subject of frequent complaints."

As I have already said the publications have given very poor results, and as some wag has said, it is because the dogs can't read.

BURIAL GROUNDS.

No complaints were received regarding the condition of any of the burial grounds within the Burgh, and the grounds are well kept.

FOOD AND DRUGS ACTS.

Forty-four samples of Food and Drugs were procured during 1933 and submitted for Analysis.

The following table gives the articles purchased and the results of the analysis :—

Article.	Total Samples.	Certified Genuine.	Certified Adulterated.	Penalties.
Sweet Milk, ..	27	26	1	£2
Sugar, ..	3	3	—	—
Whole Rice, ..	3	3	—	—
Ground Rice, ..	4	4	—	—
Oatmeal, ..	2	2	—	—
Tea,	2	2	—	—
Butter, ..	1	1	—	—
Margarine, ..	1	1	—	—
Milk (Test.), ..	1	1	—	—
Total, ..	44	43	1	£2

Of the 26 samples of Sweet Milk the average "Fat" content was 3.73, the highest being 4.52 and the lowest being 3.02.

The average "Non-Fatty Solids" of the 26 samples was 8.84, the highest being 9.28 and the lowest being 8.50.

The following is the result of the analysis of the sample reported upon as being "Non-Genuine":—

Water,	88.62
Total Solids,	11.38
Fat,—3.36	
Non-Fatty Solids—8.02	
	100.00

Deficient in Non-Fatty Solids to the extent of 0.48 per cent. The vendor of this sample was prosecuted and fined £2.

UN SOUND FOOD.

Thirty-seven pounds of foodstuffs were seized and destroyed as being unfit for human consumption, namely:—

Cooked Gammon ..	34 lbs.
Pork Tongue, ..	3 lbs.
	37 lbs.

INFECTIOUS DISEASES.

Forty-eight 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.
Paratyphoid Fever, ..	1	..	..	..	..	..	1	..	..	1
Scarlet Fever, ..	24	..	8	11	4	1	..	..	18	6
Diphtheria, ..	1	..	..	1	..	..	..	..	1	..
Erysipelas	1	..	..	..	..	1	..	..	..	1
Acute Primary										
Pneumonia,	6	..	..	1	1	..	2	2	3	3
Acute Influenzal										
Pneumonia,	8	..	..	..	2	3	3	..	7	1
Pulmonary										
Tuberculosis,	3	..	..	..	1	2	..	..	2	1
Non-Pulmonary										
Tuberculosis,	1	..	..	..	1	..	..	..	..	1
Puerperal Pyrexia, ..	3	..	..	..	..	3	..	..	2	1
Totals,	48	..	8	13	9	10	6	2	33	15