[Report 1934] / Medical Officer of Health, St Andrews.

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ROYAL BURGH OF ST. ANDREWS

REPORTS

BY

MEDICAL OFFICER

AND

SANITARY INSPECTOR

For the Year 1934

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INDEX.

STATISTICAL COMMENTS.

According to the estimate of the Registrar General, the population of the Burgh in 1934 was 8,552, a decrease of 145 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 97 births—43 males and 54 females—the birth rate being 11·3 per 1,000 of population as compared with 10·3 in 1933. Illegitimate births numbered 9.

The number of marriages registered was 51, the rate being 6·0 per 1,000 of population.

Corrected for transfers, the number of deaths from all causes was 105—43 males and 62 females—the rate per 1,000 of population being 12·3, the corresponding figure for the previous year being 13·9. The death rate exceeded the birth rate by 1·0 per 1,000 of population. An excess of deaths over births has consistently occurred during the past five years.

There were three deaths among infants under one year of age, the infantile mortality rate being 31 per 1,000 births. The corresponding figure for Fife was 71 and for the whole of Scotland 78.

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

The following were the causes of death :—

Tuberculous diseases, ...	1
Cancer, malignant disease, ...	13
Diabetes mellitus, ...	1
Other general diseases, chronic poisonings, ..	3
Cerebral Haemorrhage, etc., ...	23
Other diseases of nervous system and sense organs,	4
Heart disease, ...	20
Other circulatory diseases, ...	4
Bronchitis, ...	1
Pneumonia (all forms)	4
Other respiratory diseases, ...	1
Gastric and duodenal ulcer, ...	1
Diarrhoea, etc., ...	2
Cirrhosis of the Liver, ...	1
Other diseases of Liver, etc., ...	1
Other digestive diseases, ...	3
Acute and Chronic Nephritis, ...	6
Other diseases of the genito-urinary system, ..	2

Congen. debil., prem. birth, malformation, etc., ..	3
Old age, ...	3
Suicide, ...	3
Other violence, ...	4
Causes ill-defined or unknown, ...	1
Total, ..	105

Sixty-one per cent. of the people who died were 65 years of age and over. During the 1925-1929 quinquennium the corresponding percentage was 53 and during the 1930-1934 quinquennium it was 59. Therefore as knowledge increases with the passing of years more and more people are living to a riper old age.

Thirty-one per cent. of the total deaths occurred among people in the age group 35 to 65 years as compared with 24 per cent. in 1933. 3·5 per cent. of deaths as compared with 11 per cent. in the previous year occurred in the age group 10 to 34 years. Only 4·5 per cent. of deaths occurred among children of 9 years and under. In short, there is taking place a steady shifting of the weight of mortality from the early and mature periods of life to later years and the balance still swings outwards, giving promise of a still fuller and longer life.

Variations in Mortality from Selected Causes.

The following Table gives an indication in convenient form of the variations in mortality from selected causes at all ages since 1925. The figures represent the actual number of deaths :—

Year.	Diphtheria.	Influenza.	Tuberculosis.		Cancer.	Cerebral Haemorrhage.	Diseases of Heart and Arteries.	Pneumonia. (all forms.)	Bronchitis.	Appendicitis.	Diseases of Liver.	Acute and Chronic Nephritis.
			Respiratory.	Other Tuberculous Diseases								
1934	—	—	—	1	13	23	24	4	1	—	2	6
1933	—	2	2	2	12	18	34	8	2	2	1	1
1932	1	3	5	1	17	15	25	2	3	3	2	3
1931	—	1	5	—	15	19	24	12	2	—	4	1
1930	3	1	3	1	13	18	17	8	2	1	1	1
1929	1	6	6	2	16	24	25	6	1	—	—	3
1928	—	2	5	—	16	19	16	4	1	2	—	4
1927	—	—	1	—	14	11	19	5	5	1	2	3
1926	—	2	3	—	16	13	18	5	2	1	1	—
1925	—	4	4	4	13	15	14	5	5	1	1	2

Among the principal epidemic diseases influenza alone has shown a more or less steady incidence of death. Deaths from diphtheria have been few and from such diseases as scarlet fever negligible.

Deaths from tuberculosis have been of steady occurrence but fewer deaths have occurred in the last than in the previous five years period.

The number of deaths from cancer varied little throughout the decade. Considering the facts that the population have been dying at a progressively later date and that methods of diagnosis have been improved, the absence of increase in the mortality rate might signify that there has really been a decline in the incidence of cancer. It remains, however, the third of the killing diseases. Research in regard to malignant disease is being actively prosecuted and advances have been made in preventing recurrence of the disease after operation and in alleviating suffering in inoperable cases by the application of X-rays and radium therapy. A cure for cancer still remains to be found, however, and surgical procedure continues to be the only effective means of extirpating the disease. Early treatment is essential and it is of the utmost importance that persons who have any suspicions whatsoever of the presence of malignant disease should at once seek competent medical advice.

Deaths from cerebral haemorrhage, the second of the killing diseases, have been increasing in number. An explanation for this is difficult to find. The disease is usually one affecting the older members of the population and one might be justified in assuming that its increased mortality has been due to the general ageing of the population were it not for the fact that a notable proportion of the deaths occurred and has been more frequently occurring among people in the prime of life. From a study of cases whose conditions have not been complicated by cardiac disease there would seem to be a relation between cerebral haemorrhage and a mode of life which entails mental and physical strain combined with meals ill assorted and hastily consumed.

Disease of the heart and arteries have been the principal causes of death and there are clear indications that mortality from this cause is steadily increasing. There is no doubt but that the change which has occurred in the age of the people bears some relation to the increased mortality and that death from cardiac failure has been in many cases the culminating episode in long healthy lives. On the other hand there are some grounds for suggesting that it may be related to infectious diseases acquired in the past century. Only 25 years have elapsed since the great fall in the mortality from infectious diseases commenced,

so that if it be accepted that it takes, on the average, 40 years for a primarily non-fatal infection of the heart and blood vessels to result in a fatal issue, the cardio-vascular death rate of to-day is being increased as a result of the epidemic waves of the "eighties". Present-day conditions of life must not be lost sight of, however, in considering the problem. It may well be that the increasing stress and strain to which adults are now exposed may conduce to a gradual and often premature ageing and decay of the tissues resulting in failure of the heart. In the inadequate state of our knowledge no definite answer can be given but it is certain that if the death rate from cardio-vascular disease is to be lowered, the practice of preventive medicine must extend to a wider field of activity.

Deaths from pneumonia and bronchitis are apt to increase with the incidence of influenza. Nevertheless, they are distinctly related to the age constitution of the population. Pneumonia, "the old man's friend," is a common terminal affection of the aged. The mortality from this cause during the 1930-1934 quinquennium has been greater than that during the previous five years.

Mortality from appendicitis has not been high. On account of the invariable imperative nature of its symptoms and of a wide-spread appreciation of its dangers, appendicitis is one of the diseases wherein delay in seeking medical advice does not often occur. Early diagnosis and early operation are matters of importance in most cases.

Deaths from diseases of the liver have shown an increase during the last quinquennial period.

Deaths from acute and chronic nephritis have occurred principally among middle-aged people. In some instances the disease was related to infections acquired earlier in life causing structural damage to the kidneys: in others no obvious cause was found.

ENVIRONMENTAL CONDITIONS.

Drainage.

The Burgh system of sewage disposal operated satisfactorily throughout the year. The screens at the Bruce Embankment and at Shorehead by breaking up solid material continued to be of great service in preventing pollution of the foreshore.

Various extensions were made to existing sewers to provide for housing schemes. The main sewers which have been laid down

in the locality wherein the greatest amount of building activity is proceeding are of sufficient size to deal with a greatly increased number of houses.

The Kinness Burn did not overflow its banks and no houses were flooded. Some occupiers of neighbouring houses and grounds have developed a habit of using the burn as a tip for refuse. As a result the bed of the stream has become littered with all sorts of unsightly rubbish. The Burgh Engineer sees to the cleaning out of the stream at intervals but it is hardly fair that the whole town should be at the cost of remedying the result of regardlessness on the part of a few.

The drainage system at St. Nicholas farm, which is situated on the foreshore, was brought to the notice of the Town Council. In the spring of the year a chokage occurred in the outfall sewer, which runs across the foreshore, as a result of infiltration with sand. To relieve the chokage the drain was opened below the pathway which skirts the beach. A nuisance was thereby created. When the attention of the proprietors was directed to the state of affairs they repaired the break and deviated the line of the sewer to the east so that the effluent was discharged at low water mark among the rocks. The arrangement has been a distinct improvement since the foreshore has been freed from the risk of pollution and complaints from bathers have been obviated.

Nuisances.

From time to time during the summer months complaints were lodged regarding offensive smells at the foreshore, particularly in the vicinity of the east sands. Careful investigation was made in every case by the Sanitary Inspector and decaying seaweed was always found to be the cause. The underlying parts of seaweed exposed between tides during warm weather in July and August give off a most foul putrefactive odour which is often ascribed to sewage. As a means of helping to overcome the nuisance men were detailed to collect and remove seaweed and other beach refuse daily. The bathing pools in which accumulation of decaying seaweed tended to gather were emptied and cleaned out at regular intervals.

An unsightly growth of slimy green weed on the walls of the Step Rock bathing pool was removed by the application of lime.

The camping ground at St. Nicholas Farm was kept under strict supervision, particularly because of its nearness to a populous part of the town. The site is not ideal but the tenant of the ground does his utmost to overcome and prevent any causes for objection. Five chemical closets for males and females were provided. Tents are arranged in lines and campers receive

written instructions on such matters as behaviour, orderliness and disposal of refuse. It would be an improvement if better facilities for ablution were provided. A strong complaint regarding noise was received but investigation failed to sustain grounds for objection.

The number of licensed dogs in the Burgh was 517. The figure represents one dog for every 16 persons.

Fouling of the footways and paths by dogs continues. Indeed, there is evidence that in spite of the warning notices posted by the Town Council in prominent places, conditions have become worse. Some of the sidewalks are frequently in an appalling state. It is clear that the Town Council are to be left with no option but to introduce Bye-laws to check the nuisance.

Refuse Disposal.

3,927 tons of house, trade and municipal refuse were disposed of during 1934, 3,326 tons having been collected from houses. The total amount is about 100 tons more than that of the previous year.

The early part of the year found the dunes at the West Sands in use as a refuse tip. Fortunately, this area is now utilised only for brief periods in times of need. There is no doubt but that the method of dumping employed is highly creditable. One has seen picnic parties seated within a few yards of the working face of the tip all in ignorance of its proximity. Nevertheless, as has been emphasised in many previous Reports, the gradual disappearance of the sand dunes under flat stretches of reclaimed land is a desecration of natural beauty.

New dumping ground was found in a hollow in a field at Allanhill, about a mile south-west of the Burgh boundary. Controlled tipping was not practised. In a few months the hollow was filled in and recourse was made to a low lying piece of ground at University Park. There is sufficient available space there to receive all the town's refuse for a considerable time to come. When work has been completed a large area of reclaimed land will have been added to the existing sports ground. Methods of controlled tipping are followed with the result that there are few signs of infestation with rats or of the presence of objectionable litter.

94 tons of waste paper were collected during the year. Part was baled and sold : part was burned at the old refuse depot at Canongate.

During the early morning hours the streets display an amazing variety of bins and buckets, some with lids, some without, some more disreputable than the refuse they contain. The sport of

the winds and the centre of attraction to stray animals, many of them are an obvious menace to the neighbourhood. Under the Burgh Police (Scotland) Act, 1922, the Town Council have powers to call upon householders to provide a suitable type of receptacle fitted with a proper lid. They may find it necessary to exercise their powers unless matters improve. It is surely not too much to expect householders to replace discarded containers with a well constructed lidded bin. The Sanitary Inspector will be pleased to give any advice requested.

Water Supply.

There was no scarcity of water throughout the year. From the middle of April till the end of the year the smallest amount of water which Cameron Reservoir contained was 160 million gallons, equivalent to about seven months supply. It is of interest to note that it was not until the 13th of April that the effect of the severe drought of 1933 was fully overcome. On that date for the first time since March 1933 the reservoir overflowed.

The average consumption of water per head of population was 61·45 gallons. The figure is the lowest since 1928 but is still excessive. Although it can be accounted for partly by the number of hotels, schools and other institutions where baths are much in use, there is no doubt that much domestic waste occurs. However, there is more than enough water to meet requirements and it is well that a plentiful supply should be available.

Samples of water were collected for bacteriological examination from various parts of the town at monthly intervals. *Bacillus Coli*, except in the instances mentioned below, was always found to be absent from 100 c.c. of water and tests for other organisms gave an equally satisfactory result. Chemical analysis was also favourable. The water supply therefore is of a high standard of purity.

In December there arose an interesting situation which illustrated the need for meticulous care in any interference with the filtration plant. For some days *B. Coli* was found to be present in 1 c.c. of water collected in the town. On the other hand, the water in the clear water wells at Pipeland which feed the town was found to be free from *B. Coli* in 100 c.c. On investigation it was ascertained that shortly prior to the sudden appearance of the contamination the filter beds had undergone an intensive cleaning. Since the mains are all in intact condition, it was presumed that the cleaning of the filter beds had so reduced their efficiency that a quantity of imperfectly purified water had entered the wells and was borne to the town. That the faulty process must have been of short duration was shown by the fact that by the

time the presence of impure water was detected, the wells had become filled with water of a high degree of purity. Brief though the period was, nevertheless, it apparently had an effect on the health of the town since there occurred an incidence of gastro-intestinal and urinary infections sufficient to cause the general practitioners to draw the attention of the Health Department to their presence. Shortly after normal conditions were restored no further cases occurred.

As was mentioned in the Report for 1933, complaints were received regarding the occasional appearance of fresh water shrimps in the water supply. One further complaint was received in 1934. A full investigation was made. The intruder was found to be a small Crustacean—*Asellus aquaticus*.—This animal is a common inhabitant of unfiltered water and is found quite frequently in water pipes. Sand filtration, however, by depriving the animal of the food on which it preys leads to its death by starvation. It was clear, therefore, that since the St. Andrews water supply is well filtered, and the animal was found comparatively rarely, its presence was a chance intrusion. Eventually, it was traced down to some of the filter wells and to the balance tanks situated above the clear water wells. These were found to contain growths of green tangled masses of algae, polyzoa and hydroids in which there was a considerable population of crustaceans. The walls of the wells and of the tanks were thoroughly scraped and lime-washed after which no further appearances occurred in the town. An important point in connection with the infestation was the presence of the animalculi at the filter works on the wrong side of the filters. They undoubtedly passed through the filters either because layers of sand had become too thin or because an opportunity was afforded during cleansing operations. The barrier of sand is there to prevent such intrusions and some care is necessary in disturbing the sand lest this most important line of defence be penetrated.

No new works were undertaken in connection with the water supply. The Town Council had under consideration a report by the Water Engineer on his inspection of Lambieletham Reservoir under the Reservoirs (Safety Provisions) Act, 1930, in which he directed attention to a leakage which occurs when the water level rises to about 7 feet 6 inches below the outflow level and to the need for repair and improvement of the sides of the reservoir. The auxiliary reservoir at Lambieletham is very shallow and yearly becomes overgrown with weeds. Its banks are being gradually eroded and the water is frequently heavily impregnated with mud. Since water from Cameron Reservoir is on occasion led through this reservoir it would be a great improvement if the Water Engineer's recommendations were adopted.

Atmospheric Conditions.

The chief meteorological features of the year were an excess of sunshine during the first nine months, a deficiency of sunshine during the last three months, a deficiency of rain in February and phenomenal mildness and unusual wetness in December.

The sunniest month was July, when there were 224·9 hours of bright sunshine. The total number of hours of bright sunshine for the year was 1,558·8—18·9 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 July and the coldest month was March.

The mean temperature for the whole year was 48·7 degrees F.—1·3 degrees greater than the average temperature maintained over the past ten years.

The driest month was February and the wettest month was December. The total amount of rainfall for the year was 27·84 inches—8·82 inches more than in 1933. There were 120 days in which rain fell as compared with 104 days in 1933.

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.	·4	·7	·75	—	1·7	2·4	2·73	1·6	2·1	1·2	·8	0·0

The average amount of radiation for the year was 1·3. In April a series of accidents happened to the apparatus, rendering it impossible to obtain continuous results. In December the sky was overcast to such a degree that no registration was made on any day.

Housing Conditions.

The ninth housing development which comprised 12 two-roomed houses, 36 three-roomed houses and 6 four-roomed houses, was completed during the year. These houses were erected under the Housing (Scotland) Act, 1930, to accommodate families displaced from insanitary houses.

The total number of houses provided by the Local Authority since 1920 is as follows :—

Two-roomed houses, ...	131
Three-roomed houses, ...	240
Four-roomed houses, ...	107
Five-roomed houses, ...	12
Total, ..	490

During the year no houses were erected under Government subsidy. Eight houses were erected under loan from the Town Council and 15 houses were built under private enterprise. For the first time since the war there have been encouraging signs of activity in private house building.

Plans in connection with the erection of 6 houses and with the alteration and improvement of 8 houses were reported on. Plans for the erection of one new business premises, for the alteration of 26 existing business premises and for the erection or alteration of other 32 buildings were approved by the Local Authority.

Perhaps the chief event in housing matters was the demolition of the quaint, familiar old dwellinghouses in Union Street and Muttoes Lane. Partly by private agreement and partly through compulsory Purchase Orders the Town Council had acquired these properties. The sites have now been cleared and there is much conjecture as to the use to which they will be put. The Union Street site has been disposed of to the University but the Muttoes Lane site remains the property of the Town Council. It is to be hoped that the cleared areas will be kept open for some considerable period. Several Local Authorities have found that the erection by them of new houses on the sites of demolished properties has proved to be an uneconomical and ultimately unsatisfactory undertaking and it is generally held that the retention of sites as open spaces is preferable. The Muttoes Lane site could readily be converted into an attractive garden space so designed as to add considerably to the appearance of North Street. If after a time good reason emerges for building on the area, the space will still be available.

The Town Council made further progress in connection with the displacement of families from insanitary houses. Action under Section 16 of the Housing (Scotland) Act, 1930, was taken regarding 30 houses at Shorehead, 28 houses at Balfour Place, 9 houses at 98-106 North Street, 3 houses at 84 Market Street and 8 houses at 136 South Street. Early in the present year it was decided—

(*a*) to accept an undertaking in respect of the properties at Shorehead that they would not be let for habitation and that they would be converted for use as storage accommodation.

(*b*) to issue demolition orders in respect of some of the buildings at Balfour Place and to agree to the conversion of others into garages, stores and business premises ;

(*c*) to issue demolition orders in respect of the houses at 104-108 North Street ;

(*d*) to issue closing orders in respect of the houses at 84 Market Street, which are situated above shops ;

(*e*) to purchase 136 South Street with a view to its demolition.

Particular difficulties arose in connection with parts of some of these properties, in which cases matters were continued. By the end of the present year, however, it is expected that all the houses will have been finally dealt with.

Tenants from these insanitary properties were given accommodation in the 54 new houses of the ninth development as under :—

Shorehead	25 families.
Balfour Place, ..	16 families.
104-108 North Street,	5 families.
84 Market Street, ..	2 families.
136 South Street, ..	1 family.
Muttoes Lane, ..	2 families (the last remaining of the Slum Clearance Scheme).
139-141 Market Street,	3 families (demolition orders made in 1933).

There therefore remain to be displaced the following :—

Shorehead, ...	2 tenants, both single persons.
Balfour Place, ..	13 tenants, two of them single persons.
84 Market Street, ..	1 tenant, a single person.
136 South Street, ..	5 tenants, three of them single persons.

Alternative accommodation has accordingly yet to be provided for 13 families and 8 single persons. It is not yet clear, however, that the Town Council will be in a position to provide houses for single persons even although they should desire to do so.

Official representations regarding the insanitary state of many additional properties remain to be considered by the Town Council. The following number of houses were recommended for procedure under Section 16 of the 1930 Act (i.e., for demolition or closure).

South Street—15 properties comprising 22 houses.
Market Street—6 properties comprising 17 houses.
North Street—2 properties comprising 3 houses.
South Castle Street—9 properties comprising 18 houses.
Woodburn District—4 properties comprising 6 houses.

There are, however, more defective houses in the town than these. Surveys have still to be made of the greater part of North Street and its offshots, of Abbey Street, Fleming Place and of several isolated properties. It is estimated that there are about 50 irremediably unfit houses in these areas.

The total number of houses therefore required to replace houses which should be demolished or closed is :—

For tenants from properties concerning which action has been taken under Section 16 (excluding single persons), ...	13 houses
For tenants from houses against which official representations have been made, ..	66 houses
For tenants from houses yet to be dealt with	50 houses (estimated)
Total, ..	129 houses

To meet these requirements the Town Council decided to embark upon a tenth development of their housing shceme. Plans were accordingly approved for the erection of 120 houses—20 two-roomed, 64 three-roomed, 24 four-roomed, and 12 five-roomed houses. The scheme will necessitate an extension of Lamond Drive for a distance of 564 lineal yards. A new road will be laid down and houses will be built on either side. Seven entirely distinct types of houses will be erected and so arranged that the new street will present a pleasing prospect, freed from the characteristic environment of state-aided housing developments.

In addition to the number of houses which are deemed to be so unfit that they cannot be reconditioned at reasonable cost, there have so far been inspected about 20 houses which are considered to be worthy of renovation. The Sanitary Inspector has been instructed to prepare a list of the alterations and repairs necessary to render these houses fit for habitation in order that the requisite Notices may be served upon the proprietors.

Re-housing of Single Persons presents a particular problem in the Burgh. There are many such people residing in insanitary houses and most of them are elderly. The construction of a hostel for their accommodation has been mooted but, for several reasons, the idea of herding old folk together in an institution-like building has not found favour with the Local Authority. It has been suggested that these folk should find lodgings for themselves but in St. Andrews lodgings are hard to find and expensive. It has occurred to the Town Council that a reasonable solution of the difficulty would be to build a certain number of two-roomed houses to be reserved solely for the accommodation of elderly couples and single persons. The additional room would be available for a companion or for an attendant in the event of illness. Sufficiently supervised there is little to be said against the arrangement and it is to be hoped that the experiment will be proceeded with in connection with the tenth development in which there are to be 20 two-roomed houses.

Overcrowding of houses occupied by single families is not thought to present a very serious problem in the Burgh. It is estimated that perhaps thirty cases exist but no accurate survey has been made. Most of the overcrowded houses of this type are insanitary houses and have been noted for action directed towards the displacement of their occupants.

Overcrowding of houses through sub-letting on the other hand presents quite a formidable problem and is becoming on the whole more prevalent in better type houses than in insanitary houses as a result of the demolition and closure of unfit houses which is taking place. The Town Council have had to intervene in the case of the houses erected by themselves and have formulated the general rule that no sub-letting of municipal houses is to be permitted unless they are satisfied that overcrowding will not occur. In the case of houses erected under the 1930 Act no sub-letting whatsoever is allowed. In other cases they allow sub-letting to permanent boarders for periods of six months, at the end of which time the matter is reconsidered. Up to the present the standard on which they have been basing their decisions is three persons to a two-roomed house, five persons to a three-roomed house and seven persons to a four-roomed house.

The whole question of overcrowding, from whatever cause, will come under review during the present year when the Housing (Scotland) Act, 1935, comes into force. Some of the small burghs in the neighbourhood of St. Andrews have already organised their machinery in anticipation of the terms of the new Act and have carried out preliminary surveys in order to obtain a reasonably accurate estimate of the probable number of houses required to overcome conditions of overcrowding. No such steps have been taken in St. Andrews where activities are being concentrated on the discharge of committments under the Act of 1930. It is expected that the new legislation will make special provision for the letting of houses to visitors in places of resort. Summer letting undoubtedly gives rise to overcrowding but temporary overcrowding of that nature does not give rise to the same serious problem. It would be a severe blow to the town if the suggested terms of the new Act were strictly enforced since so many householders depend upon summer letting as a means of livelihood.

The number of applicants for houses showed a further increase. The Housing Register was reviewed periodically and several applicants received houses which had become vacated. Nevertheless, the following were the number of applicants at the end of the year :—

	Applicants.
Two-roomed houses, ...	80
Three-roomed houses, ...	103
Four and Five-roomed houses, ...	34
Total, ..	217

A few of these applicants reside in insanitary houses but most reside in furnished rooms or desire a house into which to marry or desire to have better accommodation than they presently have.

Although the Town Council are making commendable progress in connection with the provision of accommodation for families living in unfit houses and although forthcoming legislation will enable them to provide houses for the relief of overcrowding, it is clear that they will continue to be met with demands for houses from applicants residing under conditions which are outwith the scope of housing legislation. On the other hand it is quite possible that the compulsory transference of families from one house to another as an outcome of the measures which will be taken to abate overcrowding will result, as it were, in a general shift round of a considerable bulk of the population in which case it is conceivable that municipal houses will become available for applicants. Variations in rents will not then present objections since the new Act provides for the consolidation of housing accounts thereby enabling Local Authorities to determine uniform rentals.

Building Bye-laws.

Much consideration was given to the Model Bye-laws prepared by the Department of Health. The Burgh Engineer, Sanitary Inspector and Medical Officer of Health had several meetings and eventually draft Bye-laws were prepared for submission to the Town Council. Various amendments and additions to meet local conditions were made to the Department's form of Bye-laws. The completed work was forwarded to the Town Council in the month of November but by the end of the year, so far as is known, no further action had been taken.

Town Planning.

As years pass the building lines of the town extend farther and farther landwards and new streets are rapidly appearing. Many habited buildings in the more populous parts are on the eve of becoming vacated and are threatened with demolition. These two circumstances—the building of new residential quarters and the demolition of old—point to the need for the formation of an

agreed upon plan of development and re-development of the town's environment. Succeeding Town Councils are liable to have different ideas about how new areas should be laid out and about how cleared sites should be utilized so that there is danger of changing policies leading ultimately to unwonted situations and to costly expedients. So far no serious criticism can be levelled against the manner in which the town has been developed in recent years but increasing activity under the Housing Acts must lead to rapid changes and opportunities will be afforded for the erection of works which may enhance or disfigure the locality.

The Town and County Planning (Scotland) Act, 1932, confers upon Local Authorities the power to control the planning of their areas and to direct the progress of building towards preconceived objectives. The enforcement of the Act is in the hands of the County Council, who, however, have authority to delegate their duties to small burghs where schemes are related solely to land within their boundaries. The Town Council, in the interests of the future of the Burgh, would be well advised to prepare and adopt a Town Planning Scheme.

INFECTIOUS DISEASES.

An increase occurred in the incidence of infectious diseases. As compared with 48 in 1933, the following number of cases were notified :—

Scarlet Fever, ...	40
Diphtheria, ...	3
Erysipelas, ...	1
Continued Fever, ...	2
Ophthalmia Neonatorum, ...	3
Malaria, ...	1
Dysentery, ...	1
Acute Primary Pneumonia, ...	6
Acute Influenzal Pneumonia, ...	2
Puerperal Pyrexia, ...	2
Pulmonary Tuberculosis, ...	3
Non-pulmonary Tuberculosis, ...	2
Total, ..	66

The increase was largely due to scarlet fever. Nothing in the nature of an epidemic spread occurred. Throughout the year there was a steady incidence of cases the majority of which were not related to each other. Although 75 per cent. of the cases occurred among children under 15 years of age there was never at

any time an indication that the schools were a means of spreading the disease and no classes were inspected. Milk supply bore no relation to the infection. The circumstances were similar to those obtaining in other parts of the country. A particular organism found a suitable soil, flourished and was content to remain there.

67 patients were admitted to the City Fever Hospital—43 from St. Andrews and 24 from other parts of the County. The average duration of stay of patients was 33·8 days.

In more detail the number of admissions was as follows :—

Locality.	Scarlet Fever.	Diphtheria.	Prim. Pneumonia.	Tonsillitis.	Septic Rath.	German Measles.	Ulcerative Colitis.	Total.
St. Andrews ..	34	3	2	1	1	1	1	43
Cupar ..	3	—	—	—	—	—	—	3
County								
Landward ..	16	—	—	—	—	—	—	16
West of Fife ..	5	—	—	—	—	—	—	5
Total ..	58	3	2	1	1	1	1	67

Two deaths occurred in Hospital. A scarlet fever patient admitted in 1933 died in the first few days of the year from cardiac complications. A young man admitted as a suspected case of dysentery was found to be suffering from acute ulcerative colitis. As so frequently happens with this disease he failed to respond to treatment and gradually became weaker until he died.

The Matron, whose skill, kindliness and devotion to duty is so well-known to people within and without St. Andrews reports as follows on the work of the hospital :—

" The first three months of the year were exceptionally heavy. From time to time bed accommodation was taxed. Seventeen patients were still in hospital on the 1st of January 1934. The majority of these were county patients, mostly from the West of Fife. Many of them had a prolonged stay in hospital. Adenitis was a common complication during the third and fourth week. This also occurred with patients admitted in January. The parotid gland was occasionally affected.

The total patient days for the year were 33·8 as compared with 29·3 in 1933. This rise is no doubt due to five patients admitted in the month of January who each averaged a stay of over ten weeks in hospital. Of these, one suffered from Endocarditis, one from Rhinitis, one from Nephritis and Otitis Media, one from Otitis Media and the last from a Pharyngeal abcess and otitis media. Each of them had severe adenitis.

In February the disease seemed to become less virulent. Better rashes were seen. Throats were less severe. Adenitis was mild and patients were able to leave hospital in, on an average, from four to six weeks. This continued throughout March. Towards the end of April and during May all the patients admitted had severe rashes while throat conditions varied from mild to severe. With the exception of one patient who suffered from Ethmoiditis, all were able to leave hospital after a stay of four weeks.

Towards the end of the yeai Scarlet Fever was again prevalent. Eighteen patients were admitted to hospital. These all showed remarkably good scarlatinal rashes while only two suffered from severe throat infection, the throats of others being comparatively mildly involved. Adenitis was not a common complication and only occurred in the two patients with severe throat infection, one in the first week of illness and the other between the third and fourth week.

Two patients suffered from Otitis Media. One of these had very large tonsils while the other had had Tonsilectomy done. Antivirus was used in both cases with good results. One ear which discharged profusely for five days before antivirus was applied dried after ten days treatment. The other responded to treatment within a week.

Four of this group of patients suffered from heart irregularity—one of old origin, the patient an adult suffering from Exophthalmic goitre. Her daughter who had been nursed at home for a week after the onset of her illness developed Endocarditis about her fourth day in hospital. One patient, aged five, showed an irregularity on admission. A boy of eleven developed an irregular slow pulse on the sixth day of illness. All made good recoveries and were able to leave hospital in four or five weeks.

Mr. Gibson, Ear, Nose and Throat Specialist, Dundee, was called in twice during the year. A patient admitted in January suffering from Scarlet Fever and having enlarged tonsils developed at the end of three weeks, a sore throat and a secondary scarlatinal rash. Between five and six weeks after admission she again developed Tonsillitis. Several haemorrhages occurred from the throat. On Mr. Gibson's advice she had a series of four injections of Tetanol after which there was no further bleeding. Her convalescence was complicated by Endocarditis. Complications had ceased by the end of three months and she was allowed home under the care of her doctor. In June a child suffering from Scarlet Fever developed Ethmoiditis and it was found necessary to operate. Turbinotomy and drainage of Ethmoid was done. Otorrhoea appeared two days after the operation and continued

for two weeks. The patient made a good recovery and left hospital after a stay of six weeks.

Two Staff Nurses were appointed towards the end of 1933 and their services were retained until April 1934 when fewer patients were being admitted. In November extra help was again necessary and a staff nurse was obtained from Thornton Fever Hospital. Her services at the end of the year were still required. A ward maid was employed during the first six months of the year and again for part of November and December when the wards were busy.

The Hospital was closed from 6th July until 6th August when all cases of infectious diseases were transferred to St. Michaels Hospital, Leuchars."

Diphtheria Immunisation.

Immunisation against diphtheria is carried out at the City Fever Hospital by the Matron, who reports :—" Fifty-two people were immunised against diphtheria during 1934. Owing to pressure of work very little immunising was done in the early part of the year. It would appear (when one considers that no less than forty-nine of the total number were immunised during the last three months of the year) that mothers are beginning to realise the great advantage of immunisation against this disease. It is routine to mention diphtheria immunisation to patients' relatives or friends who come to enquire for them at the hospital. In every case the explanation is met by the mothers with the greatest approval. They willingly bring their children for the series of injections and invariably tell other mothers who seem to have no hesitation in arranging to have their children protected. Three of those immunised were adults and forty-nine were children. Nine children came through the Infant Welfare Centre and one from a private practitioner."

MATERNITY AND CHILD WELFARE SCHEME.

The organisation of the St. Andrews Maternity and Child Welfare Scheme is perhaps sufficiently well-known to require only a brief descriptive outline. The two institutions concerned with the supervision of the health of mothers and children are the James Mackenzie Institute and the Child Welfare Centre in North Street. Both are attended by Dr. A. Rowand, who has been largely responsible for the organisation of the Scheme. At the first are seen ante-natal cases, pre-school children and school children and at the second nursing mothers, infants and children below two years of age. An ailing babies' ward, ante-natal room,

bacteriological and chemical laboratories and an X-Ray department are at the service of this section of the community.

Detailed health histories—from birth till after school years—of the younger members of the population are being compiled and research work of value is being carried out upon the information so collected. Medicinal treatment is not undertaken in any of the various clinics; advice on hygiene, dieting and nursing care alone is given. Patients found requiring treatment are referred to family doctors. The regularity with which attendances at the clinics is maintained says much for the regard in which the organisation is held by the general public and it is significant that, except for the issue of Certified Milk to necessitous cases, no food preparations such as are often the primary attractions of Child Welfare Centres, are handed out.

Births.

Intimation was received of 96 births, 5 of which occurred outside the Burgh. Of these, 18 were attended by doctors at the Memorial Cottage Hospital, 4 by doctors and private nurses at patients' homes, 37 by doctors and the maternity nurse of the Nursing and Child Welfare Association at 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 five illegitimate births in the Burgh and two which were transferred back. The number of illegitimate births is greater than has been the case for several years.

Two still births occured at the Memorial Cottage Hospital.

There were two cases of twins.

Infantile Mortality.

Three deaths occurred among infants under one year of age, infantile mortality being 31 per 1,000 births. One infant, less than a week old, died of prematurity; another less than four weeks old died of congenital debility; the third, whose age was between three and six months was considered to have died from asphyxia.

One child of one year of age died of enteritis, the bacteriological cause of which was not discovered.

Maternal Mortality.

No deaths occurred as a result of pregnancy. It is some years since last a maternal death occurred in the Burgh.

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.

These services are very complete: indeed there are few populous communities of the size of St. Andrews wherein so much trained assistance is available in times of ailment and disability, or wherein so much is done to prevent the occurrence of illness.

There were nine calls for medical help, viz :—

Delay in second stage, ...	2
Ruptured perineum, ...	3
Condition of Eyes, ...	2
Haemorrhage, ...	1
Condition of Baby, ...	1
Total, ..	9

Home Visitation.

The total number of children under 5 years of age, on the register of the Child Welfare Centre, was 476 as compared with 495 in 1933. With the exception of those who reside outwith the area of the Health Visitor, all these children were visited by the nursing staff.

The following number of visits were paid :—

Under 1 year ..	808
1-5 years, ..	460
Total, ..	1268

In addition the Maternity Nurse of the Association paid 402 visits to 70 expectant mothers in the Burgh and to 2 residing in the neighbouring part of the County.

The total number of home visits paid by the nurses was therefore 1670.

Infant Feeding.

During the year 89 babies on the Child Welfare register reached six months of age. Of these, 57 per cent. were entirely breast fed. Figures for the past twelve years are as follows :—

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Per cent. breast fed	61	62	63	59	66	62	58	50	59	61	51	57
Per cent. partially breast fed ..	6	16	4	12	8	11	10	15	4	12	11	5
Per cent. bottle fed	33	22	33	29	26	27	32	36	36	27	38	38

Sixty-one of the babies were attended at birth and followed up by the maternity nurse who was successful in securing breast feeding for 40 (65 per cent.), 4 (7 per cent.) were partly breast fed and 17 (28 per cent.) were artificially fed.

Truby King methods are followed in St. Andrews and it is recognised and taught that human milk is the ideal food for human offspring. At the same time it is appreciated that instances occur when breast feeding places too great a strain on the strength and nervous system of mothers or, more rarely, when infants cannot digest their mother's milk. When such evidence is clear recourse is made to artificial feeding. Every endeavour, however, is made to cause mothers to refrain from giving up breast feeding on any account without seeking medical advice.

Ante-Natal Consultations.

Ante-natal consultations were carried out in a room in the James Mackenzie Institute specially equipped for the purpose. Expectant mothers are examined by their own doctors. Those who have engaged no doctor are taken by the maternity nurse to see the doctors of their choice, all the general practitioners of the Burgh having been incorporated in the scheme.

Apart from mothers who were examined in their own homes, 34 mothers made 35 attendances at the clinic. None of these presented abnormalities.

It is noteworthy that of the 32 cases which were attended at birth by the midwife alone, 27 were previously examined by a doctor.

Post-Natal Consultations.

There are no special arrangements for post-natal consultations. The routine work of the family doctors and of the maternity nurse insures all the supervision that is necessary. The maternity nurse paid 1,008 visits to the 69 Burgh and 2 County cases.

CHILD WELFARE CONSULTATIONS.

1. Child Welfare Centre.

Clinics continued to be held twice weekly at the Child Welfare Centre in sessions lasting 2½ hours each. 103 sessions took place during which 304 children were examined. The work at the Centre is intended to embrace the supervision of infants up to the age of two years only. To suit the convenience of mothers, however, older children are sometimes seen.

(*a*) Number of children attending—

(i) Under 1 year of age, ...	177
(ii) 1-2 years of age, ...	74
(iii) 2-5 years of age, ...	47
(iv) Over 5 years, ...	6
Total, ...	304

(*b*) Number of attendances—

(i) Under 1 year of age, ...	1138
(ii) 1-2 years of age, ...	232
(iii) 2-5 years of age, ...	90
(iv) Over 5 years of age, ...	6
Total, ..	1466

In addition, the following number of visits were paid to the nurses at the Centre at times other than those of the doctor's consultation hours :—

Under 1 year, ...	106
Over 1 year, ...	42
Total, ..	148

2. James Mackenzie Institute.

The chief work in the Children's Department of the James Mackenzie Institute is concerned with the medical inspection of pre-school children, the majority of whom have already been under observation at the Child Welfare Centre. Few St. Andrews children enter the Local Authority's schools but are accustomed to the routine of medical inspection and have had a lengthy record compiled of their history and physical condition. Much preventive work is done by reference of children to their family doctors when abnormalities are detected and cordial co-operation

between the doctor in charge and the school medical officer has resulted in the avoidance of duplication of work. So popular have these clinics become that many parents continue to send their children for inspection throughout school life.

Seventy-five sessions were held during the year at which 404 children attended.

(*a*) Number of children attending—

(i) 2-5 years of age, ...	251
(ii) Over 5 years of age, ...	153
Total, ..	404

(*b*) Number of attendances—

(i) 2-5 years of age, ...	477
(ii) Over 5 years of age, ...	185
Total, ..	662

Observation Nursery.

In no part of the child welfare organisation is the incalculable value of trained observation and nursing care so well illustrated as in the Ailing Babies Ward. Changes, sometimes of the most dramatic nature, are effected in the well-being of infants admitted for treatment. Puny little things who seem to be clinging to life by the merest thread seem visibly to thrive to robust babyhood in their cots. It is sometimes said that such child welfare work leads to the survival of the unfit. There has been little evidence in support of this in the Ward. Records of the subsequent progress of these infants show that almost without exception they have become sturdy youngsters able to play a full part in the world of childhood and shaping well for adventure in the sterner world beyond.

Babies are admitted not only from the Burgh but also from a wide area in the East of Fife and many parents have had reason to be thankful for the devoted care their infants have received.

During the year the following number of attendances were made—

(*a*) *Number of Cases received.*	*Resident.*	*Non-Resident.*
(i) Under 1 year, ...	12	37
(ii) Over 1 year, ...	1	3
Total, ...	13	40

(*b*) *Number of Attendances.*	*Resident.*	*Non-Resident.*
(i) Under 1 year, ...	485	589
(ii) Over 1 year, ...	1	84
Total, ...	486	673

	1934	*1933*
Total number of attendances ..	1159	723
Average number of in-patient days,	39	37
Average number of out-patient days,	17	16

Food and Milk Supply.

At the request of the nursing staff, Fife County Council supplied food and milk to two nursing mothers, three necessitous infants and two pre-school children.

Cod liver oil and, occasionally, milk were given to necessitous cases by private donors. Mrs. Younger of Mount Melville continued to present a pint of Certified Milk daily to children attending the Infant School.

Provision for Maternity Cases.

The Memorial Cottage Hospital is registered as a Maternity Home under the Midwives and Maternity Homes (Scotland) Act, 1927. Only private cases are received. There are four single bed wards and a labour ward all of which are excellently equipped and maintained.

During the year 23 confinements took place, all of them with medical attendance. Of these, two were instrumental deliveries. In one other case labour was induced on account of albuminuria. The forceps deliveries were occasioned by flat pelvis and prolapse of the cord.

There were two premature births—one male (8 months) and one female (6 months). The latter died within 24 hours of birth.

Two still births occurred, both males, the causes of death being prolapsed cord and asphyxia pallida.

It has been pointed out in previous reports that since the closure of the Scores Nursing Home there has been no provision in the Burgh for the hospital accommodation of cases of normal labour residing under unsatisfactory or necessitous circumstances. The Town Council, however, after consultation with the Committee of Management of the Memorial Cottage Hospital appealed for funds for the endowment of a maternity bed for the poorer mothers of St. Andrews as a wedding present from St. Andrews citizens to H.R.H. The Duke of Kent. Over £700 was collected

and arrangements were completed for the use of a special single-bed ward for the purpose. There is a definite need for such facilities in the Burgh since from time to time there occur cases in which home conditions militate against the best interests of the expectant mother.

Under existing arrangements cases of difficult or dangerous labour are transferred to Dundee Royal Infirmary. Only mothers suffering from non-infectious ailments or disorders are so dealt with. Mothers with infectious complications are transferred to Thornton Infectious Diseases Hospital.

Two cases of puerperal pyrexia occurred—one was transferred to Thornton Infectious Diseases Hospital and the other, which was inadvertently sent to Dundee Royal Infirmary, was transferred to King's Cross Hospital, Dundee.

FOOD SUPPLY.

Meat Supply.

Strict supervision is maintained over the Burgh meat supply, practically all of which is drawn from the Public Slaughterhouse at Maryfield.

Carcases of all animals slaughtered are inspected before release for sale by Messrs. Young & Bowie, Veterinary Inspectors, who were appointed for the purpose by the County Council. It is generally recognised that inspection of meat by competent, qualified meat inspectors is an important means of safeguarding the public from the sale of unsound meat under which circumstances St. Andrews is in a more fortunate position than most small burghs, since elsewhere supervision is most frequently in the hands of detention officers who, with rare exceptions, have no special knowledge of the subject.

During the year 5,735 animals were slaughtered—1,236 cattle, 4,031 sheep and 468 pigs—as compared with 6,139 animals in 1933. 15,432 lbs. of meat were condemned and destroyed as unfit for human consumption as compared with 10,151 lbs. in 1933.

A satisfactory degree of cleanliness was maintained in the slaughterhouse. All the various mechanical appliances gave good service. Certain works of renovation were found to be necessary in connection with parts of the structure of the premises which apparently had not been finished as well as might be.

No complaints were lodged regarding "fired meat," probably partly on account of the summer heat having been less severe and partly on account of the arrangements which the Burgh

Engineer made for subjecting the roof of the cooling hall to a continuous flow of water.

The Town Council gave much consideration to matters in connection with the Tripery which had been let to the Superintendent for the preparation and sale of gut and tripe. Eventually they came to the conclusion that it was not desirable that the Superintendent should conduct private business in the course of his employment at the Slaughterhouse and decided that they would take the Tripery under their own control, appointing the Superintendent to carry on the business with assistance.

Milk Supply.

Milk is probably the most important single article of food consumed by man : as an article of diet for infants and children it is indispensable. Its high nutritive qualities depend upon its richness in minerals, especially lime salts and phosphates and upon the nature of the protein which it contains. In addition to its nutritive qualities, however, it possesses certain attributes which play an important part in promoting resistance to infectious diseases.

Unfortunately, milk is a highly suitable medium for the growth of bacteria and many epidemic outbreaks have been traced to this cause, notably scarlet fever, diphtheria, typhoid fever, paratyphoid fever, dysentery and septic sore throat. The germs of these diseases were introduced into the milk by dairy workers or originated from infected cows.

A more constant danger arising from infected milk is the spread of tuberculosis through its agency. It is estimated that about 40 per cent. of the cows in this country are infected with the tubercle bacillus and that about one cow in 500 is suffering from tuberculosis of the udder and is therefore most probably producing milk containing living germs. In Scotland during the past five years some 9,000 cases of tuberculosis among human beings have been notified annually. Careful research has shown that about 4 per cent. of people suffering from tuberculosis of the lungs have been infected with tubercle bacilli of bovine origin and about 50 per cent. and 85 per cent. respectively of people suffering from tuberculosis of the bones and of the lymphatic glands have been infected likewise. Considering the fact that living tubercle bacilli can be detected in some 6 to 7 per cent. of samples of milk submitted for investigation, the state of affairs is not to be wondered at.

Existing legislation has done much to improve the safety of the milk supply by increasing the strictness of supervision maintained over dairy premises and dairy workers. Educational work among dairy farmers, the promotion of Clean Milk Competitions, the formation of Accredited Clean Milk Producers' Schemes and the introduction of "grading" have led to an improvement in general cleanliness. There are still, however, some producers who have become habituated to slovenly methods, who with reluctance make temporary efforts at improvement and who regard any talk about contamination of the milk supply as nonsense. Their type is becoming fewer with the passing of years but they still remain a menace.

Measures for the eradication of tuberculosis from dairy herds are alarmingly defective. Such schemes as are in force are of voluntary nature and are participated in only by a comparatively few enlightened dairymen all of whom are at considerable expense in maintaining herds free from the disease. The great bulk of the milk supply of the country therefore comes from herds which do not produce untainted milk.

The Tuberculosis Order 1925 was introduced with the object of securing the detection and elimination of "open" cases of tuberculosis in cattle. Its operation, however, has been largely a failure so far as the security of the milk supply is concerned, since under its terms an animal, before it can be destroyed, must be so obviously suffering from the disease that its condition frequently is patent to the merest novice ; meanwhile it has been an active centre of infection to other animals for a considerable time.

From these observations it will be clear that there are grounds for uneasiness in the present state of the national milk supply and there is little doubt but that if the public became aware of all the facts they would demand that measures of a much more effectively active and comprehensive nature be taken towards the purification of this fundamentally important article of diet.

As things are, some local authorities are depending upon pasteurisation as a means of safeguard. The process, however, tends to encourage unhygienic methods on the part of the lax producer and causes changes in some of the important constituents of milk.

Other local authorities encourage the production of milk from tubercle-free herds. Such milk is known as Certified Milk and Grade A (Tuberculin Tested) Milk. It is sold in untreated state and is as safe a milk as can be produced.

St. Andrews is fortunate in being well supplied with this type of milk. Three large dairy farms situated at Wester Balrymonth,

Mount Melville and Cults deliver Certified Milk to houses, hospitals, schools and other institutions in the Burgh. There is still room, however, for an increased consumption of this milk on the part of growing families.

The four registered dairy farms within the Burgh were kept under supervision. A satisfactory degree of cleanliness was maintained although one of them suffers from several structural defects. One of the four dairy shops was demolished in the course of a Slum Clearance Scheme. Another of better type took its place.

Sale of Food and Drugs Acts.

Twenty samples of food stuffs including margarine, tea, oatmeal, rice and flour were submitted for analysis. All were found to be genuine. Twenty-three samples of milk were taken. One of them was found to be deficient in fat content. Since the vendor had received the milk on contract no proceedings were taken on his paying £2 towards expenses.

FACTORIES AND WORKSHOPS ACTS.

Forty-two visits of inspection were paid to factories, workshops and workplaces in the Burgh. Four written notices were served by the Sanitary Inspector calling for remedy of defects. In three cases contravention of the Public Health Acts were detected. Two of these, which were related to want of cleanliness, received adequate attention. The third case which comprised an insufficiency of sanitary accommodation is pending. No overcrowding was found in any of the work premises.

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 Fifth Annual Report upon the General Sanitary Condition of the Burgh during the year 1934.

The Report has been prepared in accordance with the requirements of the Department of Health for Scotland.

I have the honour to remain,

Ladies and Gentlemen,

Your obedient Servant,

ALEXANDER H. STEELE, R.P., A.R.San.I.
Sanitary Inspector.

Sanitary Inspector's Office,
Church Square,
St. Andrews,
April, 1935.

SANITARY INSPECTORS REPORT, 1934.

GENERAL STATISTICS.

Valuation (Rateable), ...	£107,548
Population (estimated), ...	8,552
Area of Burgh (to High Water Mark and including Links), ...	1040·2 acres
Area of Burgh (below High Water Mark to Low Water Mark), ...	1171·6 acres.
Total Area of Burgh to Low Water Mark and including Links), ...	2211·8 acres.
Area of Burgh to High Water Mark and excluding Links, ...	725·34 acres.

Wards (approximate areas, etc.)—

	Area to L.W.M.	*Area to H.W.M.*	*Rateable Value.*
Ward 1, ...	291·20 acres.	229·00 acres.	£31,667
Ward 2, ...	154.60 acres.	80·00 acres.	£36,845
Ward 3 (including Links 314·86 acres),	1766·00 acres.	731·20 acres.	£39,036

Mileage of Roads and Streets—

Class I. Roads, ...	3·18 miles.	
Class II. Roads, ..	0·94 ,,	
Unclassified Roads, ..	7·34 ,,	
Public Lanes and Walks,	4·834 ,,	
		16·294 miles.
Private Streets, ..	1·068 miles.	
Private Lanes, ...	0·214 ,,	
		1·282 miles.
Total, ..		17·576 miles.

Note.—North Street and Deanscourt Road and the East end portion of South Street have been transferred from Unclassified to Class I. Roads. Union Lane (Public) was compulsorily closed under the Slum Clearance Scheme.

Public Parks, Recreation Grounds, Playing Fields, etc.—

The Links (Golf Courses, etc.), ...	314·86 acres.
Bruce Embankment (Putting Greens, etc.), ..	5·40 ,,
Bassaguard (Children's Playing Field), ..	1·00 ,,
Cockshaugh Park, ...	5·353 ,,
East Bents (Putting Green), ...	2·00 ,,
Kinburn Park (Tennis Courts, Putting Green, etc.), ...	6·682 ,,
Woodburn (Children's Playing Field), ..	2·834 ,,
	338·129 acres.
East and West Sands to Low Water Mark (including Rocks, Eden Mouth, etc.), ..	1171·600 ,,
Total, ..	1509·729 ,,

METEOROLOGICAL OBSERVATIONS.

The Meteorological Office record that the year 1934 began well, sunshine being generally above the average in January and still more so in February, although in the North of Scotland it was less than the average in both months. The three following months did not come up to the average, April showing a general deficiency, but June showed an improvement and July was a brilliant month with an average percentage excess practically equal to that of February. September was another sunny month, except in the south-west. By the end of the month there seemed a good prospect of another notable sunny year, but the phenomenally low records of October, November and December greatly reduced the accumulated excess, and at many places prevented the year's total from quite reaching the average; at some places, however, there was an excess of more than 100 hours.

July was in some instances responsible for more than a sixth of the year's sunshine, yielding 300 hours or more locally on the South Coast and in the Channel Islands. At Kew 130·9 hours were recorded in the first ten days; at Oxford just over 100 hours in a week (4th-10th).

During 1934 Scotland had a real place in the sun. Arbroath once more led with 1,601 hours, and St. Andrews comes next with 1,558 hours, and Carnoustie with 1,506 hours.

Compared with some English resorts the East Coast has something to crow over. The best record for the year belongs to Sandown, Isle of Wight, with 1,956 hours, and there are many resorts on the South Coast of England with figures between 1,800 and 1,900 hours.

Arbroath, St. Andrews and Carnoustie come near to Southend, Croydon, Illfracombe, Douglas, Isle of Man, and Weston-super-Mare.

The Arbroath total is ahead of Skegness and Scarborough and the St. Andrews figure is better than that of Blackpool.

Leuchars comes next and is 4 hours more than Cambridge, and 23 hours better than Morecambe. Carnoustie tops Hoylake and Llandudno, while Montrose is a bare hour short of the popular Welsh resort.

Such outposts as Stornoway and Kirkwall are well ahead of that famous resort, Buxton.

The following table gives the total hours of bright sunshine at various Scottish stations :—

Arbroath, ...	1,601·4 hours.
St. Andrews, ...	1,558·8 ,,
Leuchars, ...	1535·6 ,,
Carnoustie, ...	1506·2 ,,
Aberdeen, ...	1494·9 ,,
Montrose, ...	1491·7 ,,
North Berwick ..	1455·1 ,,
Perth, ...	1444·5 ,,
Dundee, ...	1417·9 ,,
Edinburgh, ...	1411·2 ,,
Ayr, ...	1299·7 ,,
Prestwick, ...	1291·4 ,,
Rothesay, ...	1221·8 ,,
Dunoon, ...	1027·6 ,,

Sunshine.

	1934.	1933.	1932.
Total sunshine for year,	1558·8 hrs.	1539·9 hrs.	1397·3 hrs.
Most sunshine in one month (July), ...	224·9 hrs.	245·9 hrs. (June)	213·7 hrs. (June)
Least sunshine in one month (Dec.), ..	15·5 hrs.	32·6 hrs. (Dec.)	35·1 hrs. (Dec.)
Percentage of possible sunshine for year, ..	35	34	31

The following table gives the Daily Mean Hours of Bright Sunshine and the total hours of Bright Sunshine, at St. Andrews, for each month during 1934.

Month.	Daily Mean Hours of Bright Sunshine.	Total hours of Bright Sunshine.
January, ...	1·84	57·0
February, ...	3·72	104·2
March, ...	4·21	130·5
April, ...	4·68	140·5
May, ...	6·12	189·6
June, ...	6·44	193·2
July, ...	7·25	224·9
August, ...	5·19	160·8
September, ...	5·31	159·3
October, ...	3·73	115·5
November, ...	2·26	67·8
December, ...	0·50	15·5
	Average 4·26	Total 1558·8

Temperatures.

During 1934 the coldest night was 3rd November, when the lowest minimum reading, 24 degrees Fahr., was recorded; the coldest day was 26th February, when the lowest maximum reading was 38 degrees Fahr., the warmest day was 7th July, when the reading of the highest maximum was 82 degrees Fahr., and the highest minimum during the night was on July 11th, 12th and 17th, when 58 degrees Fahr. were recorded.

Rainfall.

	1934.	1933.	1932.
Total rainfall for the year	27·84 in.	19·02 in.	27·85 in.
Heaviest rainfall (Dec.),	3·82 in.	2·69 in. (October)	6·8 in. (October)
Driest Month (Feb.) ..	0·03 in.	0·97 in. (December)	0·20 in. (February)
Heaviest rainfall in one day (April 12th), ..	0·86 in.	0·87 in. (7th Oct.)	0·98 in. (15th May)
Number of Rainy Days,	120	104	181

DETAIL OF RAINFALL.

Month.	No. of days with m.m. or more.	Bruce Embankment.	Pipeland Filters.	Cameron Reservoir.
January, ...	11	1·78	1·78	1·94
February, ..	—	0·03	0·04	0·10
March, ...	11	2·74	3·30	4·29
April, ...	12	3·76	4·46	5·45
May, ...	11	2·44	2·08	2·47
June, ...	5	1·68	1·90	2·65
July, ...	11	2·77	2·42	2·67
August, ...	10	3·09	3·41	3·77
September, ..	14	2·66	2·88	3·41
October, ...	9	2·33	2·51	2·72
November, ..	5	0·74	0·84	1·11
December, ..	21	3·82	4·40	5·75
Total, ...	120	27·84	30·02	36·33

DETAILS OF RAINFALL, SUNSHINE AND TEMPARATURES.

Month.	Mean Temperature	Rainfall.			Precipitation.	Sunshine.		Absolute Maximum and Minimum.			
		Total in Inches.	Most in a day m.m.	Date.	No. of days with 1 m.m or more.	Daily Mean.	Percent. of Possible.	Max.	Date.	Min.	Date.
January	42·0	1·78	10	17	11	1·84	24	54	6, 7	25	25
February,	43·1	0·03	0·5	7	—	3·72	39	54	3, 11, 22	25	26
March,	40·5	2·74	12	11	11	4·21	36	61	24	25	1
April	44·1	3·76	22	12	12	4·68	33	61	15, 16, 30	28	7
May	50·3	2·44	16	15	11	6·12	38	71	10	35	3, 17
June,	55·2	1·68	19	21	5	6·44	37	75	16	36	23
July,	61·4	2·77	10	21	11	7·25	43	82	7	48	23
August,	57·3	3·09	22	1	10	5·19	34	70	26	39	31
September,	55·3	2·66	13	6	14	5·31	42	69	28	39	22
October,	49·0	2·33	17	25	9	3·73	36	64	11	30	31
November,	42·5	0·74	6	10	5	2·26	28	55	26, 27	24	3
December,	44·3	3·82	12	26	21	0·50	7	54	8, 9	31	6, 7, 21

WATER SUPPLY.

An adequate supply, without restriction, was maintained throughout the year, and the quality was consistently very good.

After the dry year of 1933, the year 1934 commenced with Cameron Reservoir at the low level of 13 feet 6 inches. On 4th January, 1934, the level began to rise until the reservoir was overflowing at 20 feet on the 13th April, 1934, for the first time since March 1933. Thereafter the lowest level recorded was 17 feet 9 inches at September 22nd to 25th. The year closed with the reservoir full and overflowing.

The average consumpt of water per head of the population was 61·45 gallons per day, a reduction of 5·02 gallons per head compared with 1933 and a reduction of 11·11 gallons per head compared with 1932, when the consumpt was 72·56 gallons per head of the population.

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

3-inch diameter main at Auld Burns Road,	..	44 yards
4-inch diameter main at Boase Avenue,	..	175 yards
3-inch diameter main at Watson Avenue,	..	114 yards
		333 yards

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

13 connections of ½-inch bore.	
14 connections of ¾-inch bore.	
27	

During the year 168 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 Pipeland for the year 1912 to 1934.

ST. ANDREWS WATER.

Abstract of Monthly Consumpt of Water Filtered at Pipeland 1934.

Date 1934.	Upper Wells. (10″ Meter)	Lower Wells. (6″ Meter)	Total Consumpt Gallons.	Pipeland.	Rainfall Cameron inches.	Met. Station
January,	16,925,000	3,377,000	20,302,000	1·78	1·94	1·78
February,	13,480,000	2,743,000	16,223,000	0·04	0·10	0·03
March,	14,370,000	3,356,000	17,726,000	3·30	4·29	2·74
April	13,980,000	3,216,000	17,196,000	4·46	5·45	3·76
May,	15,830,000	3,477,000	19,307,000	2·08	2·47	2·44
June,	15,620,000	3,461,000	19,081,000	1·90	2·65	1·68
July,	17,480,000	4,334,000	21,814,000	2·42	2·67	2·77
August,	16,520,000	4,087,000	20,607,000	3·41	3·77	3·09
September,	14,760,000	3,601,000	18,361,000	2·88	3·41	2·66
October,	14,170,000	3,924,000	18,094,000	2·51	2·72	2·33
November,	13,590,000	3,825,000	17,415,000	0·84	1·11	0·74
December,	14,200,000	3,956,000	18,156,000	4·40	5·75	3·82
	180,925,000	43,357,000	224,282,000	30·02	36·33	27·84

Average consumpt per month, .. 18,690,167 gallons

„ „ per week, .. 4,313,115 „

„ „ per day, .. 614,471 „

„ „ per head, .. 61·45 „

ST. ANDREWS WATER.

Abstract of Consumpt of Water Filtered at Pipeland Filters.

Years 1912-1934.

Year.	Totai Consumpt.	Average per day.	Average per month.	Average per head.	Rainfall 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	600,106·43	19,165,700	63·00	33·58	31·61	..	188
1928	220,094,900	601,353·18	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	19·07	150
1934	224,282,000	614,471·00	18,690,167	61·45	36·33	30·02	27·85	167

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

DRAINAGE.

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

Three hundred and four yards of new sewer was constructed during the year in connection with the Ninth Development of the Housing and the erection of houses at Auld Burns.

The sizes of the new sewers were as follows :—

Boase Avenue and Watson Avenue (Housing 9th Dev.)—9-in. dia. Fireclay sewer, ..	228	yards.
Watson Avenue (Housing 9th Dev.)—8-in. dia. Fireclay sewer, ...	40	,,
Auld Burns Road—12-in. dia. Fireclay sewer,	36	,,
Total, ..	304	,,

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

Boase Avenue (new sewer), ...	7
Watson Avenue (new sewer), ...	3
Auld Burns Road (new sewer), ...	2
Kinnessburn Road, ...	4
Priestden Road, ...	3
Kinkell Terrace, ...	1
Middleshade Road, ...	3
Mount Melville Road, ...	1
Total, ...	24

REFUSE DISPOSAL AND CLEANSING.

The removal and disposal of refuse is a costly item to any community and it devolves upon the inhabitants to assist the Local Authority as far as possible to economise in this direction. All conbustible materials should be disposed of in the kitchen fire, and thus reduce the amount to be collected.

While the weight of refuse collected does not show a great increase the bulk is considerably greater than in years past. Most of the articles purchased are now packed in paper or cardboard wrappings and these wrappings invariably find their way to the dustbin. Building operations, municipal and private, is one of the problems affecting routine organisation, and the amount of garden refuse from these areas shows no appreciable decrease,

and during the summer season the Department has to dispose of excessive quantities.

The principle that standard covered bins be adopted within the Burgh is most important, and householders should refrain from depositing wet materials in the dustbin and should keep the bins covered or under cover.

The method of disposal of refuse by controlled tipping has been continued throughout the year. Tipping was carried out on the West Sands until the beginning of April when a start was again made at the tip at Allanhill, and this was continued until completed at the fall. A new tip at University Park was commenced and this is still in service, and as there is still a considerable hollow to fill up it is expected that this tip will last for another year.

The cleansing of the streets is carried out on the "district" system, where one scavenger is constantly employed.

Each year has shown an increase in the length of streets to be cleansed, and as another development of the housing scheme has just been completed, and another in course of erection, the whole question of refuse collection and street cleansing will require to be considered and alteration of districts carried out.

The fouling of the footpaths by dogs continues to be a serious cause of complaint, and the condition of some of the pavements in the town can only be described as appalling, and the matter presents some difficulty, but it is to be regretted that even dogs on leads are allowed by their owners to foul the pavement.

The adoption of a Bye-law would overcome the difficulty so far as dogs on leads are concerned, and would to some extent remedy the matter, but the question of the dog at large is difficult of solution.

BUILDINGS.

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

Municipal Houses, ...	54
Private Houses, ...	7
New Business Premises, ...	1
Alterations to Houses, ...	14
Alterations to Business Premises, ...	26
Miscellaneous (Garages, etc.), ...	32
Total, ...	134

Thirty-five houses were erected and passed, as fit for occupation, during the year, as follows :—

Municipal Houses,	..	12 (9th Development)
Subsidy Houses,	..	—
Houses built by Loan,		8
Non-State-Aided Houses,		15
Total,	..	35

The following table gives the number of new sanitary fittings erected in connection :—

18 stalls of urinals.
73 water-closets.
34 Baths.
67 wash-hand basins.
30 sinks.
30 tubs.

252 Total.

The following table gives the number of new sanitary fittings erected in connection with new buildings and alterations, during the past four years :—

Year.	Baths.	Basins.	W.C.'s.	Sinks.	Tubs.	Urinals.	Total.
1931	61	71	63	61	52	—	308
1932	15	35	47	20	13	9	139
1933	65	82	87	77	56	21	388
1934	34	67	73	30	30	18	252
Totals	175	255	270	188	151	48	1087

TESTING OF DRAINAGE AND SANITARY FITTINGS.

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

" Kilmallie," City Road (new drainage).
Bungalows, Kinnessburn Road (new drainage and sanitary fittings of 8 houses).
Bungalows, Middleshade Road, (new drainage and sanitary fittings of 4 houses).
" Strathmartin," Hepburn Gardens (existing drainage and sanitary fittings).
128 North Street (new drainage and sanitary fittings).
Bungalows, Priestden Road (new drainage and sanitary fittings of 2 houses).

Martyrs Church Manse (new section and existing drainage and sanitary fittings).
7 Dempster Terrace (existing drainage and sanitary fittings).
"The Ridge," Hepburn Gardens (existing drainage and sanitary fittings).
"Dunvegan," Pilmour Place (new section of drainage).
Bungalow, Kinkell Terrace (new drainage and sanitary fittings).
Public Conveniences, Bruce Embankment (new drainage and sanitary fittings).
Public Conveniences, Church Square (new drainage and sanitary fittings).
"Northcliff," Scores, (existing drainage and sanitary fittings).
Bungalow, Mount Melville Road (new drainage and sanitary fittings).
12 houses at 9th Development Housing (new drainage and sanitary fittings).

HOUSING.

During the year the Town Council commenced the 9th Development of their Housing Schemes, and by the end of the year 12 houses had been completed and occupied. All the 12 houses were of three apartments, and the position in relation to the provision of houses 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
Ninth, ..	1934	—	12	—	—	12
Total, ..	—	112	216	101	12	448

The total number of houses being erected under the 9th development is 54. Of the total there are 12 houses of two apartments, 36 houses of three apartments, and 6 houses of four apartments, and when complete will bring the total number of municipal houses up to 490. The 9th development forms the second scheme under Slum Clearance in terms of the Housing (Scotland) Act, 1930. At present a further scheme of 120 houses is under consideration.

The Muttoes Lane and Union Street Areas have now been cleared of all condemned buildings, and the portion of the land in the Union Street area has been acquired by the University, while the Muttoes Lane portion still remains in the hands of the Town Council.

During the year 176 dwellinghouses were inspected, 141 of which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation. Notices respecting 72 dwellinghouses were issued in terms of Section 16 (1) of the Housing (Scotland) Act, 1930. One notice was served in respect of a dwellinghouse in terms of Section 14 (1) of the Housing (Scotland) Act, 1930, but application was made by the proprietor in terms of Section 17 of the Act for a substitution of Orde tor Section 16 (3).

No demolition of any of the above houses had been commenced at the end of the year.

BURGH POLICE ACTS.

During the year 134 warrants were granted by the Works Committee of the Town Council :—54 for the erection of houses for the Town Council ; 7 for the erection of private houses ; one for the erection of business premises ; 14 for the alterations to houses ; 26 for the alteration to business premises ; and 32 for the erection of garages, etc. Five notices were issued in terms of Section 117 of the Act of 1892, 1 notice in terms of Section 119, and 10 notices in terms of Section 164.

SCHOOLS.

During the year alterations to the lavatory accommodation for Girls were carried out at the Burgh School and a section of new 4-inch drain and 10 new water-closets were fitted up. No action has been taken in connection with any of the schools.

PUBLIC CONVENIENCES.

The provision of suitable and sufficient lavatory accommodation, in readily accessible positions, is an important factor in a progressive community, more especially in a seaside health resort, where large numbers of visitors are to be catered for. The Town Council appreciated this fact, and as existing facilities had fallen short of present-day standards consideration was given to sites where accommodation, on thoroughly up-to-date lines could be provided. An important area to be dealt with was in the vicinity of the Bruce Embankment where the attractions of bathing, golfing and putting collect large numbers of people, and crowds attend the pierrot and band performances.

No new sites met with general acceptance, and the Town Council decided to utilise an existing building. Originally designed as a Public Shelter, the building has been altered several times, and prior to reconstruction contained a Shelter, Tea Room, and on a small scale, conveniences for both sexes. These entirely disappeared when the whole of the internal arrangements were remodelled and the exterior altered in order to provide toilet and changing rooms, etc.

The reconstructed building is divided into three sections; Ladies' Section, and Gentlemen's Private and Public Sections.

Ladies' Section.—The ladies enter from a vestibule into a corridor which contains two turnstiles, through either of which it is impossible for a person to pass without having operated it by means of a penny. The first turnstile gives admission to a subsidiary corridor and seven compartments containing W.C.'s. The doors of the compartments remain open when the W.C.'s are disengaged, a desirable feature, because of the simplicity of detecting unoccupied compartments, the increased ventilation and the incentive to cleanliness. A full-length mirror and a coin-operated machine containing ladies' requisites are provided, and in each compartment there is fitted an enamelled container for soiled articles.

The second turnstile gives access to an apartment having four lavatory basins, with hot and cold water, mirrors, etc., and for an extra charge of one penny similar facilities can be had in the privacy of a lock-fast cubicle. It was decided that it was in the best interests of the public to make towels and soap available only from a machine, and this can be had on payment of twopence. The same section of the building contains a comfortably furnished room with armchairs and glass-covered tables, where ladies can rest or change into sports attire. Coats, golf clubs, etc., may be left in charge of the Attendant for a small fee. A store for cleaning materials completes the equipment of the Ladies' Section.

Gentlemen's Private Section.—The entrance, with vestibule and corridor is arranged similar to the Ladies' Section. A penny placed in the turnstile gives admission to a Waiting and Changing Room, a lavatory containing 4 wash-hand basins and an annexe in which is fitted a four-stalled urinal and 4 W.C.'s. The doors of the W.C. apartments are fitted with coin-operated locks. The changing room is provided with seats and mirrors are fitted in convenient positions. There is a store for the use of the cleaner.

The attendant's room is situated between the Ladies' and Gentlemen's Sections and is fitted for the reception and storage of left luggage, golf clubs, etc. It has enquiry windows and doors

opening on to the corridors of the Ladies' and Gentlemen's entrances, both of which are under the supervision of the Attendant. A charge of twopence is made for the custody of parcels, etc.

Gentlemen's Public Section.—A Public Convenience for Gentlemen occupies the back portion of the building. It contains a range of nine urinal stalls and four W.C.'s, three of the latter being fitted with coin-operated locks and the fourth is reserved for the use of the Town Council's staff.

General.—The walls in the Private Sections are finished with "Glazement," white in the W.C. apartments and of different colour schemes in the others. The walls of the Public Convenience are tiled in White and Green. The floors throughout are finished with green cement, and all angles are rounded. Standpipes and floor gratings permit of the whole premises being readily and efficiently hosed and washed down. All parts of the building have ample natural lighting and ventilation. Electricity is used for artificial illumination, and all lights are governed by a Master switch situated in the Attendant's Room.

The waiting rooms and lavatories are heated by gas radiators of the console type, and hot water is obtained by means of a gas heater in the Attendant's Room, and is controlled by spring taps at the basins. The sanitary fittings are of the most modern type, and all brasswork is chromium-plated.

Another area to receive consideration was the centre part of the town. It was found impracticable to acquire a fresh site for the erection of conveniences, and it was decided to transfer the Fire Engine to new quarters and to utilise the building thus vacated. The site, which is in Church Square, is very suitable, being central and yet removed from the main thoroughfares.

A scheme of reconstruction was proceeded with in order to provide conveniences for both sexes.

In the Ladies' Convenience, no charge is made for admission to the Waiting Room, which contains a wash-hand basin and is furnished with wood seats, mirrors, and coin-operated machines for towel, soap and ladies' requisites. A private cubicle with lavatory basin and other accessories may be used on payment of a penny.

There are 5 W.C. apartments controlled by coin-operated locks, and enamelled receptacles are installed.

The Gentlemen's Convenience contains nine urinal stalls, and a public wash-hand basin is available without charge. There are four W.C.'s and a store for the cleaner's materials. The floors of both conveniences are finished in green cement, and

standpipes and floor gratings facilitate cleansing. The walls throughout are tiled to a height of about 8 feet. The sanitary fittings are of modern design with chromium-plated metal parts. The basins have a cold water supply only, but in the Ladies' convenience, hot water may be obtained from the Attendant on request. The entire building is adequately lighted and ventilated and the artificial lighting is electricity. The Ladies' Waiting Room is heated by a console-type gas radiator.

The Architects for both schemes were Messrs. Walker & Pride, L.R.I.B.A., Church Square, St. Andrews.

There is still a lack of public conveniences in parts of the Burgh, and the Town Council, have so far been unable to make any further provision in the vicinity of the Playing Fields or at the entrance of the Lade Braes, on account of the difficulty of securing sites. The matter is still receiving attention.

It is with regret that I have to again mention the acts of wilful and wanton damage done in the conveniences throughout the Burgh, and this became so common at the beginning of the year that the Town Council offer the reward of £5 for information leading to the conviction of offenders. I am happy to say that some improvement has taken place since bills containing the above reward were posted up, but there is still a lot of trouble in the interfering with the slot locks, and the introduction into those of other articles than coins.

SANITARY CONVENIENCES.

In regard to the provision of sanitary conveniences in properties in the Burgh no action has been taken on account of the fact that most of the properties concerned have or are being inspected in terms of the Housing Acts and as some of the properties are now closed no definite action can be taken pending the decision of the Town Council regarding defective properties, and as our building scheme is still proceeding further deductions fall to be made from time to time.

At the end of the year there were 174 water-closets used in common within the Burgh :—103 by 2 tenants ; 41 by 3 tenants ; 22 by 4 tenants ; and 8 by 5 tenants.

There are still 110 houses without water and sink inside the house, but since the end of the year 7 of these houses have been closed.

A complete re-survey will require to be made at a later date.

FACTORY AND WORKSHOPS ACT.

Forty-two visits of inspection were made to Factories and Workshops within the Burgh. Three notices were issued calling for the removal of minor defects.

Two Notices of Occupation of Factories were received from H.M. Inspector of Factories and 1 notice regarding the lack of W.C. accommodation at a workshop. One notice was received regarding outworkers.

All the notices received attention, and with regard to the lack of W.C. accommodation at the workshop, temporary arrangements have been made for the workers concerned.

The Inspections were as follows :—

Factories	16
Workshops, ...	22
Workplaces, ...	4
Total, ...	42

Defects found :—

Want of cleanliness, ...	2
Other nuisances, ...	1
Total, ...	3

NUISANCES.

Twenty-three complaints of alleged nuisances were received during the year ; 5 of them being written and 18 verbal complaints.

These complaints were investigated and the necessary action taken. Altogether 15 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.

BURIAL GROUNDS.

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

FOOD AND DRUGS ACTS.

Forty-three samples under the Food and Drugs Acts were procured, and submitted for analysis, during 1934.

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

Article.	Total Samples.	Certified Genuine.	Certified Adulterated.	Penalties.
Sweet Milk, ..	23	22	1	£2
Margarine, ..	1	1	—	—
Tea, ...	3	3	—	—
Whole Rice, ..	3	3	—	—
Ground Rice, ..	3	3	—	—
Oatmeal, ..	2	2	—	—
Flour, ...	2	2	—	—
Bourn-Vita, ..	1	1	—	—
Sugar, ...	1	1	—	—
Butter, ...	1	1	—	—
White Pepper, ..	1	1	—	—
Sausages, ..	1	1	—	—
Baking Powder, ..	1	1	—	—
Total, ..	43	42	1	£2

Of the 23 " Genuine " samples of Sweet Milk the average " Fat " content was 3·61, the highest being 4·03 and the lowest 3·00.

The average " Non-Fatty Solids " was 8·90, the highest being 9·31 and the lowest 8·54.

The non-genuine sample was deficient in " Non-Fatty Solids " only, to the extent of 0·45.

SLAUGHTERHOUSE.

The new slaughterhouse continues to be well managed and the following table shows the number of animals slaughtered during the year :—

Month.	Cattle.	Sheep.	Pigs.	Calves.	Total.
January, ..	79	227	44	7	357
February, ..	82	257	41	7	387
March, ..	98	338	49	12	497
April, ...	80	274	38	7	399
May, ...	85	323	37	10	455
June, ...	113	435	32	15	595
July, ...	107	444	25	12	588
August, ..	105	436	22	12	575
September, ..	112	421	28	8	569
October, ..	87	312	50	5	454
November, ..	88	254	48	5	395
December, ..	111	314	63	2	490
Totals, ..	1147	4035	477	102	5761

It will be observed that the total number of animals slaughtered was 5,761, compared with 6,139 last year and 4,661 in 1932.

Diseased meat seized and destroyed :—

Cattle.		Sheep.		Pigs.	
Wholly.	Partially.	Wholly.	Partially.	Wholly.	Partially.
11	24	2	6	1	6
7480 lbs.	1933 lbs.	154 lbs.	156 lbs.	144 lbs.	142 lbs.
9413 lbs.		310 lbs.		286 lbs.	
10,009 lbs.					

The total amount of diseased meat seized and destroyed was 10,009 lbs. and the number of seizures 50, compared with 10,151 lbs. seized last year, the seizures then being 56.

Table of diseased organs and offal seized and destroyed :—

Disease.	*Weight.*	*No. of Seizures.*
Cirrhosis, ...	2510	234
Fluke, ...	288	20
Cirrhosis and Fluke, ..	1594	119
Abscess Cirrhosis, ..	89	3
Abscess, ...	573	36
Pericarditis, ...	36	4
Tuberculosis, ...	532	10
Inflammation, ...	93	12
Congestion, ...	49	4
Fatty Degeneration, ..	7	4
Totals, ...	5771	446

The total weight of diseased organs and offal seized and destroyed was 5,771 lbs. and the number of seizures 446, compared with 7,723 lbs. seized last year, when the seizures numbered 541.

The total weight of condemned meat, offal and organs, and the number of seizures is thus :—

Meat, ..	10,009 lbs.	Seizures, ..	50
Offal, etc., ..	5,771 lbs.	Seizures, ..	446
Total, ..	15,780 lbs.	Total, ..	496

7 tons, 0 cwts., 3 qrs., 16 lbs. compared with 7 tons, 19 cwts., 2 qrs., 10 lbs. seized and destroyed last year.

The following table gives the number of animals slaughtered in the Slaughterhouse during the past five years :—

Animals.	1934.	1933.	1932.	1931.	1930.	Total.
Cattle, ..	1147	1100	814	729	772	4562
Sheep, ..	4035	4544	3462	2640	2550	17,231
Calves, ..	102	68	53	76	58	357
Pigs, ...	477	427	332	269	246	1751
Totals, ..	5761	6139	4661	3714	3626	23,901

INFECTIOUS DISEASES.

Sixty-six notifications of Infectious Diseases 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, ..	40	..	10	19	5	6	..	..	34	6
Diphtheria, ..	3	..	1	1	..	1	..	..	3	..
Erysipelas	1	..	1	..	..	..	..	..	1	..
Acute Primary Pneumonia,	6	..	..	1	..	1	3	1	1	5
Acute Influenzal Pneumonia,	2	..	..	..	..	1	1	..	1	1
Pulmonary Tuberculosis,	3	..	..	..	1	1	..	1	2	1
Non-Pulmonary Tuberculosis,	2	..	1	1	..	..	..	..	2	..
Puerperal Pyrexia, ..	2	..	..	..	..	2	..	..	2	..
Continued Fever, ..	2	..	..	..	..	..	..	2	..	2
Opthalmic Neonatorum,	3	3	..	..	..	..	..	..	2	1
Malaria, ...	1	..	..	..	..	1	..	..	..	1
Dysentery, ...	1	..	..	..	..	..	..	1	..	1
Totals, ...	66	3	13	22	6	13	4	5	48	18