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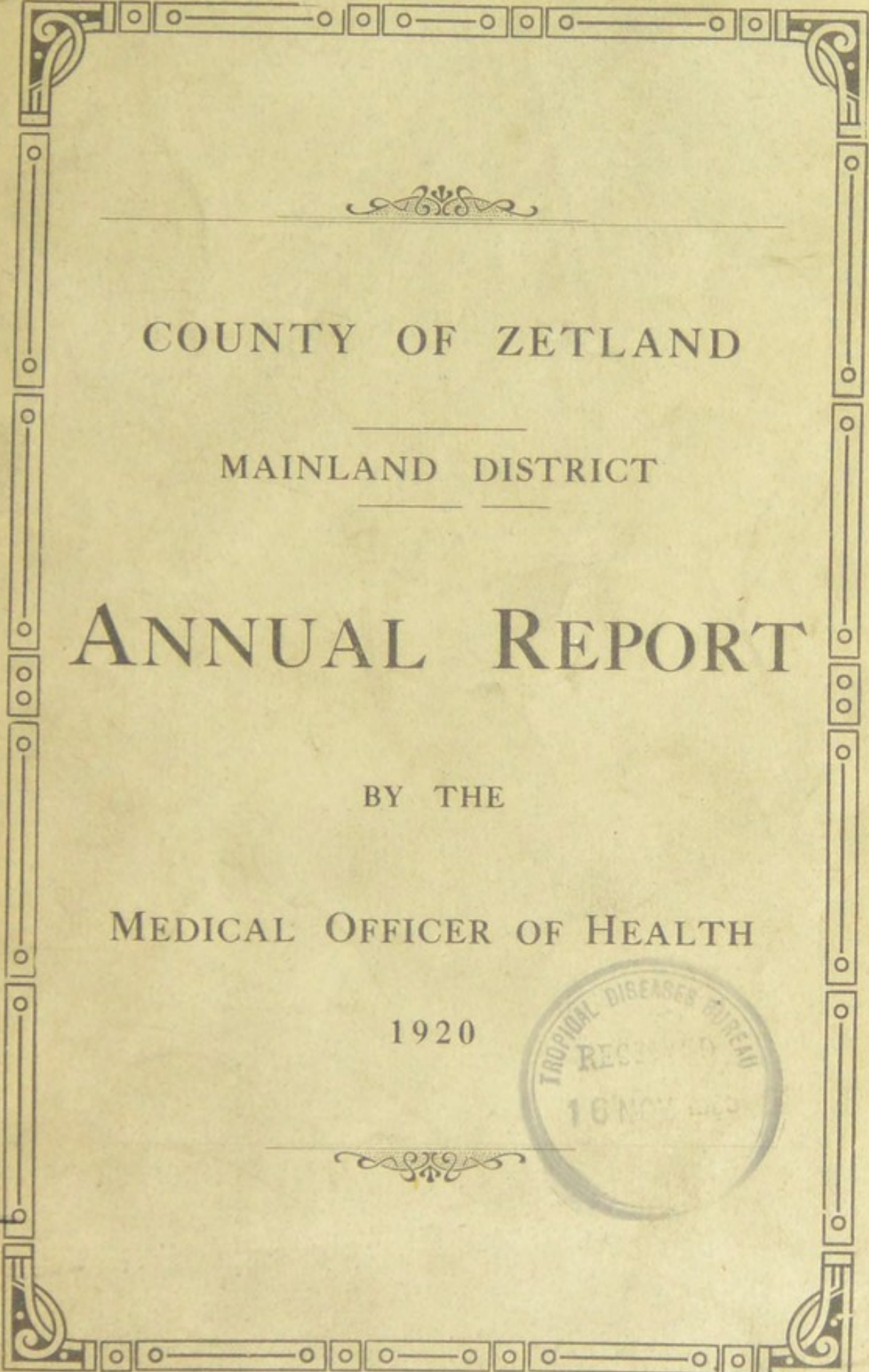
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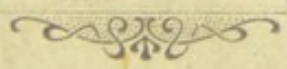
MAINLAND DISTRICT


ANNUAL REPORT

BY THE

MEDICAL OFFICER OF HEALTH

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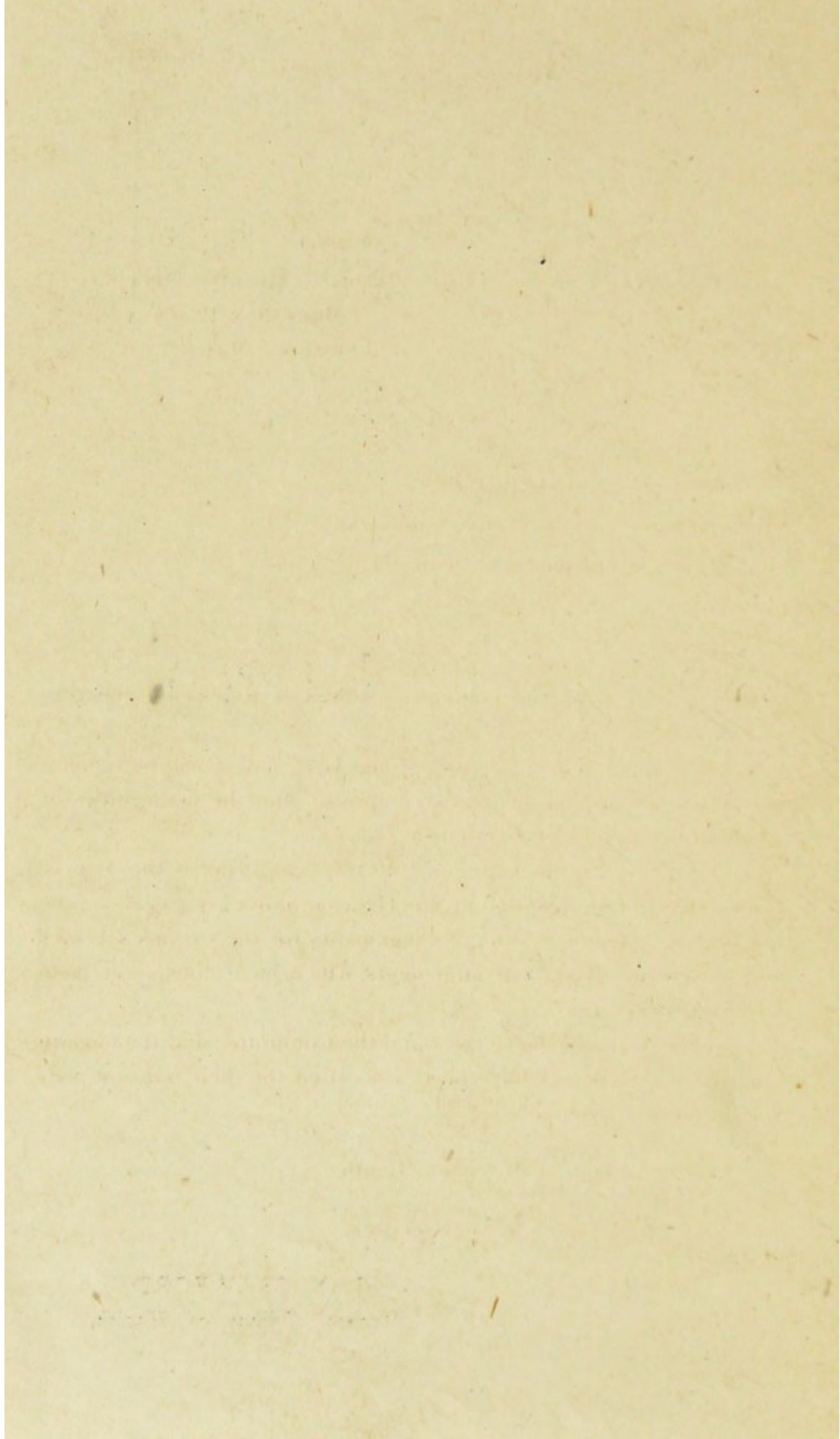
MAINLAND DISTRICT

ANNUAL REPORT

BY THE

MEDICAL OFFICER OF HEALTH

1920



PUBLIC HEALTH OFFICE,
BRENTHAM PLACE,
LERWICK, *March, 1921.*

To

*The Scottish Board of Health,
The County Council of Zetland, and
The Mainland District Committee of same.*

GENTLEMEN,—

I have the honour to submit a Report on the prescribed lines for the year 1920.

I was appointed in January of last year, and it will be remembered that the appointment is a composite one, the main duties of which are those of School Medical Officer.

There was at the beginning of the year little in the way of Public Health Organisation in this District, and a good deal of time has been occupied in making arrangements for the various schemes which were necessary—arrangements which have not as yet been crowned by success.

I have to thank the Council and the Committee and the County Officials with whom I have been associated for their uniform consideration and assistance.

I have the honour to remain, Gentlemen,

Your obedient servant,

JOHN CRAWFORD,
Medical Officer of Health.

REPORT by the Medical Officer of Health of the
County of Zetland (Mainland District) for the
year ending 31st December, 1920.

A. General Conditions.

Previous to 1920 no whole-time appointment of a medical officer for public health duties had been permanently made in this County, but in January of that year an appointment was made. The duties comprised those of School Medical Officer, Medical Officer of Health to the Mainland District and to the Burgh of Lerwick, and Tuberculosis Officer for the County (presumably in terms of Section 41 (3) of the National Insurance Act, 1913).

An extended sanitary survey of the Mainland District has not been possible in the time available, but enough experience has been gained to permit the statement that there are obviously many conditions present inimical to its health. It is not obvious that the District Committee have fully appreciated the extent of these conditions, or the efforts that should be made to effect remedies.

It may be stated with confidence that most of the crofters and cottars live in houses which do not really conform to modern standards. Sites are ill-drained, walls and roofs constructionally faulty, rooms ill-ventilated, floors deficient and often absent, and overcrowding is common. Sanitary accommodation of any kind is usually absent. Considerable villages exist where no sanitary convenience can be found, and where the surrounding ground must be greatly polluted by human excreta.

It appears that in certain areas a form of typhoid fever is practically endemic, these areas being Hamnavoe (Burra), Sound, and that known as North Roadside and Docks. Cases have come under notice during the past year.

The water supplies of the district are usually bad, and could be at once condemned were others available. Only in Lerwick and Scalloway can the supplies be regarded as satisfactory. In general, shallow wells are the only available supply, and these are only too often obviously polluted with surface drainage of a dangerous kind.

Even where an attempt has been made to line and cover such wells, their shallow natures makes them liable to pollution from neighbouring filth soaking through the soil. It is probable that such wells, open to pollution by dogs infected with taenia, are an active cause of the hydatid disease endemic in the District. Well water supply is a difficult problem. The present policy of lining, protecting, and covering the best wells available is all that can be suggested. Pumps should be fixed to the wells, instead of fouling them hopelessly with dirty dip-buckets newly lifted from the foul mire round house doors, as is too often the case.

The medical service of the district is scanty, however diligent in covering their large areas its members may be, and in the northern half of the district there is no Nursing Service at all.

The diet of the people can only be touched upon with hesitation by a new-comer, but one is informed that there is marked tendency (as in the West Highlands) to depart from the staple oat and bere meal, and rely more and more on bakers' bread. Beef is little eaten, nor now much fish outside Lerwick area, except in Whalsay and Burra. Mutton, mostly dried, is the main nitrogenous food, and potato and occasionally cabbage, the only vegetables. Tea is too much taken, but this is better than bad water. The present staple diet of the crofter and cottar would seem to be deficient in fats and proteids, which from all accounts was not the case in former times when fish with its oily liver supplied the fat so necessary in a damp and coldish climate, and when milk and butter were more plentiful.

It is easier to criticise than to suggest remedies. The Housing situation is largely dealt with by the Sanitary Inspector, and it must suffice to say that the difficulties are great.

As regards the provision of sanitary conveniences of a simple kind, one would think that popular feeling should be all in favour, but it seems opposed. The past war must have shown the younger men the necessity and the simplicity of such provision, and the District Committee now have powers under the Housing Act of 1919 to insist upon it.

B. General and Special Enquiries.

(1) Along with Mr Watt, Sanitary Inspector, a series of visits was paid to the herring packing stations at North Road, Gremista, and Bressay. No Bye-laws have been made for the Sanitary control of these stations. The herring season of last year was not a busy one, and the huts were not fully occupied. Each fishcurer owns a row of huts, in which are housed his workers—the males and females occupying opposite ends of the row. The huts are of wood, wood floored, and roofed with corrugated iron, and contain 2 tiers of

bunks, a table, chairs, a stove, and a few cooking utensils. The men (coopers) are provided with a mess hut, and a woman to cook and serve their food. The girls have to do their own cooking, one or more to each hut in some cases going off work half an hour before their dinner to perform this. Their cooking is done in the living hut. An hour is allowed for each meal.

Water from the Lerwick supply is laid in to all stations on the Mainland shore, but the Bressay stations are very ill supplied, so that casks are usually brought across from the opposite shore. Only one station has water closets, the others being provided with privies separate for each sex, erected at the adjoining piers, projecting over the sea. The slight rise and fall of tide permits this. It is usually some 100 yards from huts to piers.

There is no special accommodation, except at the one station, for personal ablution or clothes-washing or drying, and all refuse is cast into the all-cleansing sea or removed by Shetland's busy scavengers, the gulls.

As to cubic space—a series of 8 huts, each having 6 inmates, taken at random from different stations, was measured. From the total cubic space, 60 cubic feet was deducted for furniture and persons (a low estimate). The average space per inmate works out at about 220 cubic feet, which seems low. The condition of the huts and surroundings was generally good, and reflects credit on the workers. Improvements in many cases could be effected, however. More facilities for personal ablution, a better system of refuse collection, the appointment at each station of what might be called a "sanitary orderly," and the provision of a hut for washing and drying would seem desirable. And it is a question whether curers might not find it an economy to themselves and their workers to provide cooked meals at a moderate charge, instead of letting the girls muddle through cooking and eating a meal within an hour. Very little personal cleaning (and herring packing is a dirty business) and cooking can be done in that space, and still leave time for a proper meal. As a matter of fact, little proper cooking is done.

It is recognised that the usages of the trade are very conservative and the workers very independent, and that, if fishing is slack, there are many vacant hours for them, but the above recommendations are made in a helpful spirit.

The girls were usually healthy. A few cases of measles occurred and were removed to Hospital, and two cases of pulmonary tuberculosis were also treated, did well, and went home.

(2) The old copper and iron workings at Sandlodge have been re-opened, and are expected to provide much needed employment for a large number (200?) of workers. At present things are largely in a preparatory stage. A small number of skilled Cornish miners

are housed in a hut near the workings, and the remainder of the labour is done by Shetlanders housed in the surrounding district. Temporary sanitary accommodation has been provided at the pit head, and satisfactory arrangements for those below ground. Proper sanitary and washing facilities, with baths and changing room, are in course of construction. The whole arrangements are in charge of an experienced manager, who has been informed that the Sanitary officials of the district are ready to give any assistance that may be possible.

C. Burial Grounds and Offensive Trades.

(1) AITH BURIAL GROUND.—This was found much overcrowded, and strewn with bones and remains of coffin boards, and a certificate was given under Section 16 Public Health (Scotland) Act, 1897, on March 5. A further expedition was made to the spot on 28th July, in company with Mr J. B. Anderson and the Sanitary Inspector, when soundings of the depths of coffins were taken. Some of these were under 2 feet below the surface of the ground. The District Committee proceeded in the Sheriff Court on 14th August, and, there being no replies, the Sheriff made a closing order.

(2) WEISDALE BURIAL GROUND.—This place was visited on 21st April, and while there seemed obvious overcrowding, it was not found possible to certify under Section 16 as in the other case. It is understood that an extension of the burying ground was to be made, unsuitable as the adjoining ground seemed for this purpose.

(3) WHALING STATIONS.—As a result of complaints, the District Committee directed the Medical Officer of Health and Sanitary Inspector to report upon the Whaling Stations, and a visit was paid to these on 19th July, and a thorough inspection made. As this matter is of some importance it seems desirable to reproduce the Report, which here follows :—

LERWICK, 21st July, 1920.

TO THE PUBLIC HEALTH COMMITTEE,
per A. SUTHERLAND, ESQ., Clerk.

GENTLEMEN,

As requested at last meeting of the Local Authority, we have visited the whaling station at Collafirth, and also at Olnafirth, on the 19th inst., and beg to report as follows :—

COLLAFIRTH WHALING STATION.

The premises were visited between the hours of 1 and 2 o'clock p.m. on the date mentioned.

The foreshore was first inspected from the bridge across

the burn at the head of the firth, for a distance of approximately 350 to 400 yards in a southerly direction, when it was found that the stones and rocks on the beach over an area averaging about 3 or 4 feet broad along the entire distance were all covered with a white deposit.

This deposit on closer examination was found to be grease of a dirty yellow colour inside and had a strong smell of whale products. There were also found at intervals, deposits of a yellowish-looking substance of round shape, varying in size from a small to a large potato.

From the bridge mentioned, the foreshore was examined in an easterly direction up to and beyond the station for a distance of about 600 yards, when deposits of the same nature, but covering a greater area, were found; and, although the foreshores were practically almost covered with sea water, the smells arising from the grease were very pronounced.

Inside the station ground a large accumulation of whale bone, with pieces of raw blubber attached, were found, and from the maggots which were discovered on examining some of the pieces it was apparent that this had been lying for some considerable time—probably from a week to ten days, without being manufactured, and no receptacles provided in which to deposit same.

A further large accumulation of partially manufactured products was found spread out on the ground at the east side of the premises, and while some of it had the appearance of being recently cooked at the time of inspection, a large part of it had apparently been digested for some time previous to our visit, and offensive smells were emanating from same.

The process of manufacture was being fully carried on when the premises were examined on the date mentioned, and the smells being emitted were very offensive. In the absence of the manager, Mr N. Neilson, the foreman, Hans Neilson was interviewed, and on the matters referred to being mentioned to him, he admitted that the deposits along the foreshores were caused by the tanks for receiving the waste products not being constructed so as to prevent the sea, during high tides and in rough seas, from washing into the tanks and carrying the refuse matter away.

He explained, however, that the owner had intended to alter the tanks so as to exclude sea water, but, owing to the pressure of work at the station, it was impossible to have this carried out.

With reference to the accumulation of raw whale bone, he did not appear to think that there was any immediate necessity for having it worked up, as there was nothing, he thought, of an offensive nature about it, and for the same

reason he thought it did not require to be put into receptacles.

It would appear, therefore, from the condition of things at the time of inspection, and the statements made by the foreman, that at this station they are dealing with a greater number of whales than can be properly manufactured within the prescribed time limit, otherwise it should not be necessary to have any raw material lying over from the time stated; and also, it should not be necessary to spread out partially manufactured products on the open ground, to await further treatment.

From these observations it is clear that :—

- 1st.—The plant is not sufficient to cope with the work.
- 2nd.—The tanks which should prevent the escape of refuse matter into the sea are useless for that purpose.
- 3rd.—There are no receptacles for storing raw material.
- 4th.—The means provided for treating any offensive effluvium, vapour, or gas generated during the process of manufacture are inadequate.

We are of opinion, therefore, that The Whaling Bye-Laws, Nos. 1, 2, and 3 are not being observed.

OLNAFIRTH WHALING STATION.

The above station was also visited, between 2 and 3 o'clock p.m., on the 19th inst., and with the exception of any marked deposits of greasy matter being seen along the fore-shore, and also that none of the partially manufactured products were spread out on the ground adjoining the premises, the other conditions found were similar to those at Collafirth.

In addition to these however, accumulations of refuse matter were found on the beach in front of the whaling station; and it was also found that the sea along the fore-shore, in an easterly direction from the whaling station for a distance of about 300 or 400 yards, was discoloured with blood. On interviewing the Manager, he stated that the blood was coming from a whale,—one of three brought in that morning—which was moored near the station; the other two being on the flenching board.

Questioned as to the refuse matter on the beach in front of the station, he stated that this was due to one of the tanks receiving oil and waste products after manufacture, having accidentally overflowed.

With regard to the raw whale bone lying on the station, he admitted that there were no receptacles provided for putting it into, and appeared to be of the opinion, like the foreman at

Collafirth, that there was nothing very harmful in allowing it to lie in the open until it could be manufactured.

We are of opinion, therefore, that at this station also, Whaling Bye-Laws Nos. 1, 2, and 3 are not being observed.

We are, Gentlemen,

Your obedient servants,

JOHN CRAWFORD,
Medical Officer of Health.

WILLIAM A. WATT,
Sanitary Inspector.

This report was submitted to the Committee, and passed on to their legal adviser who considered it and interviewed its authors. He then informed the Committee that, in his opinion, it would require very much more evidence, both as to facts, and of a technical nature, before any conviction of a breach of the bye-laws could be obtained. The Committee would need, in his opinion to keep an inspector practically always on duty at the spot, to trace the gradual disintegration of the whales within the specified time limit as well as to send samples of the offensive deposit for analysis. The Committee did not think the expense justifiable.

The conditions mentioned in the Report have recurred (vide Sanitary Inspector's report for September), and to the plain man there remains no doubt that the Bye-Laws are regularly broken. Whalebone found repeatedly, lying loose, and full of maggots, seems quite sufficient evidence of this; nor can any wayfarer on the public road, who happens to be to leeward of the station, fail to have doubts as to whether 'the best practicable means' have been used to diminish the appalling smell that surrounds him. From a public health point of view, the danger is slight. Both of the stations are in isolated parts of the district, and no one but passers by and a few immediate neighbours, often themselves interested, are affected either by the smell or by the filthy deposits on the foreshores. In no populous district would so offensive an industry be tolerated.

D. Factories and Workshops.

The total number of workshops on the register is 23. During the year these have been inspected by the Sanitary Inspector alone, but it is hoped that the Medical Officer this year may accompany him. There is but one non-factory bakehouse.

As regards workplaces, it is to be noted that most crofter and cottar houses are in a sense workplaces, owing to the prevalent

knitting industry. Wherever infectious disease occurs, inmates are warned as to the disposal of woollen goods. Probably the bleaching process, through which these finally pass, sterilises them to a very considerable extent.

Gutting stations are also workplaces, and these are elsewhere discussed more fully.

E. and F. Housing.

General housing conditions have already been referred to.

The area immediately outside the Burgh of Lerwick, to the Northward, comprising particularly the parts known as the Docks, Lochside, Fleet, Burgess, and Pig Streets; and the Northroad-side, is not in a proper sanitary condition. Without going into detail, it may be stated with confidence that many of these houses are unsatisfactory in construction, overcrowded, and unprovided with privy accommodation or drainage. No immediate remedy seems feasible. If any of these houses were condemned, (as has apparently been done) and closed, no housing is available for the inmates. There is hope that in time, in the Burgh of Lerwick, the worst and most overcrowded houses may be closed, thanks to the Housing Scheme now under way. But the District Committee has no such scheme.

The truth is that *de facto*, if not *de jure*, the localities mentioned are really in Lerwick Burgh. The work of the inhabitants is in the Burgh for the most part, their children attend the schools there, and their money is spent mostly in shops within its boundary. It is well known that Lerwick Burgh depends largely for its prosperity upon the annual herring fishery. Most of the workers live in the District, and visit in their spare time the Burgh, in which much of their earnings are spent.

The implication is that an extension of the Burgh to include the populous (for Shetland) area immediately outside it seems desirable on sanitary and administrative grounds. The District Committee meets but once monthly, and most of its members travel from afar, but were these localities included in the Burgh, their representatives, always at hand, could attend meetings at any time.

The Burgh Council no doubt has financial objections to this extension. The provision of lighting and sewerage—especially the latter—would be at considerable cost, the technical difficulties being great. But there is no doubt as to the general ultimate desirability of this course.

G. Rivers Pollution.

There is no problem of rivers pollution.

H. Infectious Disease—Hospital Accommodation.

The Infectious Diseases Hospital, which is shared in combination with the Burgh of Lerwick, lies in a fairly isolated position off the South Road, near Lerwick. Several additions seem to have been made to the original structure. The main block consists of an administrative part in front, with small wards adjoining behind and to the East side, the latter, two in number, (called the Typhoid Wards) being modern, well fitted, and in good repair. The wards in rear, numbering three, are not so recent, and would be rendered more satisfactory by having the floors stained and polished instead of scrubbed, and by repainting. The closet accommodation of these wards particularly needs attention in this latter respect. Twelve beds in all (including 2 cots) may be considered available, divided among the five small wards; and there is one ill-lighted, small room in addition, where a bed might be placed, in emergency. The wards are in clean condition, the beds and mattresses in good repair, the linen cupboard sufficiently stocked, and a proper amount of crockery and utensils ready for patients.

The administrative part consists of a kitchen, with store-rooms, a sitting-room, and a small spare bedroom on the ground floor, and bedrooms, bathroom, and cupboards above these. The permanent staff comprises a Nurse-Matron with 2 maids, one of whom acts as assistant nurse when required. This is not an ideal arrangement, but, granted that some permanent staff must be kept, it is thus reduced to the lowest possible. Different diseases in different sexes might well introduce considerable difficulty in management, and there is no doubt that objections can be made to one nurse attending simultaneously to different diseases. But it is understood these objections are not now considered so insuperable as once they were, if due precaution is taken, and a clean overall kept for use in each ward practically obviates the risk of cross-infection.

Connected to the block described, by a long passage way, is a newer block, consisting of two four bedded wards, separated by a kitchen, and having two bedrooms for staff above. It is thus possible to have a practically separate administration, and this block has been used since February last as a Tuberculosis Hospital. The Nurse on duty here has her meals in the administrative block, but otherwise there is no intercourse. The heating and lighting of these wards is their weakest point, and one important in a Shetland winter.

In addition to this new block, there is also an old wooden pavilion, which is still capable of use if the roof is kept properly watertight. It contains a few old bedsteads and mattresses, still usable in emergency. At present it has to be used as mortuary, the previous mortuary now being the "clean" side of the disinfectant block. It is understood that a new coachshed or garage is

to be provided elsewhere, and the present coachshed converted to a mortuary, which the provision of a roof-light will accomplish. The laundry building is cramped, and would scarcely suffice, if the Hospital should be busy.

The accommodation for smallpox consists of a small wooden shed on the "Knab," within Lerwick Burgh, but separated by over a hundred yards from any other buildings, of which there are few within a quarter of a mile. A small hut intended for nurses' quarters, is adjacent. The shed consists of two wards, each capable of taking 2 or 3 beds, separated by a small room or ward kitchen, and an earth closet, cross ventilated, open off each. No furniture or utensils are kept here, and these would be supplied from the Infectious Diseases Hospital, when needed. When last examined these premises were found in good repair, and capable of use in emergency. It is understood that staff would have to be supplied from the other Hospital and any further assistance obtained from the Mainland if required.

I. Disinfection.

In a wide spread, and scarcely populated district, such as this, the conveyance for disinfection of infected articles is a serious consideration. Last year no apparatus was available. But a steam (Grampian) disinfector is now installed at the Combination Fever Hospital, which is quite capable of dealing with all requirements. As to personnel, an arrangement has been made between the Hospital Committee and the Gilbert Bain Trustees and the Ambulance Committee for the joint service of a capable man, who now attends daily. For the Burgh of Lerwick and its surroundings, the conditions are satisfactory. Articles can be conveyed by a horsed ambulance to the disinfector, and duly returned. Suitable bags have been provided. But, for the Country districts, no such arrangement can be made, and probably it would be cheaper for the Local Authority to destroy, and pay for, any articles in doubt. Destruction by fire on a open space is always possible. To take a horsed ambulance 25 miles perhaps, and return, and then to restore the disinfected articles, and again return—a total of 100 miles—is impracticable. The provision of a motor ambulance suitable for removing cases of infectious disease, as well as for this purpose, has been suggested, but nothing has yet been done. There have been very few cases of Infectious Disease in the District, outside the environs of the Burgh.

J. Prevention of Outbreak and Spread of Infectious Disease.

(I) SMALLPOX.—On receipt of the Board's circular, dated 10th

May, 1920, a supply of lymph was obtained from the Board, and arrangements were made by the District Committee for free vaccination of all persons presenting themselves, medical men being offered a fee of 3/6 for each case successfully vaccinated. The public did not take advantage of the offer, though advertisement was duly given. The lymph issued to medical men for this purpose is still in their possession.

(2) TYPHOID FEVER.—Three cases occurred at Hamnavoe (Burra). Of these, one had evidently been infected by a case at an adjoining house, but no connection with the first case could be traced. The sanitary condition of Hamnavoe is bad, and a report was made on the subject to the District Committee, in August, 1920, by the Sanitary Inspector. An attempt was made, with assistance of the local member of the Committee, to form a body of inhabitants of the village, to supervise its sanitation, in their own interest, but this had no success. It is not easy for officials living in Lerwick to supervise the sanitation at Hamnavoe, which can only be visited occasionally. The appointment of a scavenger, who should see that a proper system of removal of rubbish was adopted and carried out, and that wells were kept as free of pollution as possible, would seem necessary. The District Committee should insist upon provision of suitable pail closets, and the proper disposal of their contents.

(3) VERMIN.—On receipt of the Board's circular.

, the question was submitted to the District Committee, who gave powers to the Sanitary Inspector and the Medical Officer of Health. Thereon a circular was drawn up, for distribution in suitable cases; and an advertisement was placed in the local newspapers, directing attention to the dangers of body-vermin, and to the facts that advice and disinfectants could be obtained gratis from the Public Health Department, and that steam disinfection of bedding, etc., could be carried out in the Lerwick area. No applications by the public have been as yet made. Judging by the condition of school children, verminousness must be fairly prevalent in the district.

No baths are available for the treatment of verminous persons, and the Committee of the Zetland County Homes (Poorhouse) refused the use of their accommodation for this purpose.

(4) BACTERIOLOGICAL EXAMINATIONS.—There is no laboratory available for Public Health purposes in the County, and as the forwarding of throat swabs to Aberdeen is unsatisfactory, it was considered necessary to obtain an Incubator, for use at the Public Health Office. Examination of throat swabs, and of sputa, for tubercle bacilli can now be done free of charge for practitioners, at any time when the Medical Officer of Health is in Lerwick. The

cost of the Incubator should be shared between the District Committee, Education Authority, and Town Council.

K. Venereal Diseases.

There are no facilities for treatment. The Medical Officer of Health on appointment, after consideration, reported to the Local Authority that there was no prospect of forming a scheme satisfactory to the Board, in accordance with their memo. attached to the Regulations of 1916.

Dr. Dewar, one of the Board's Inspectors, visited Shetland in June, and fully appreciated the difficulties of the situation. In short, these are that while there is sufficient evidence of a considerable amount of venereal disease in the District, there are no facilities for the examination of pathological specimens for doctors, nor for the careful treatment requisite, which is expensive, and which few Shetland patients can really afford. As a result of Dr. Dewar's visit, the Board pressed the Local Authorities of the County to combine and formulate a scheme, pointing out that the influx of workers in the fishing season made this most desirable. No combination has been effected, and the difficulty of premises and personnel for a centre seems insuperable.

The Medical Officer of Health next wrote on 23rd December, 1920, enquiring whether the Board would sanction a modified scheme, providing for the examination of specimens and the supply of salvarsan in proper cases. The Board replied on 8th January, 1921, agreeing, and again impressing the necessity of combination. This is now under consideration, but the obstacle seems to be that each Authority seems to consider that the venereal cases come from another district, and that its own is practically free from this trouble, which is not the case. There is no doubt that a modified scheme of this kind is much needed.

L. Mortality.

The population of the District is estimated by the Registrar General as 16887, to the middle of 1920. The number of deaths, corrected for transfers, was 261, which gives a crude death rate of 15.5 per 1000. Last year it was 16.6. Of the deaths, 149 were of persons over 65 : 58 from 35 to 65 ; 41 from 10 to 35 ; 6 from 1 to 10 ; and 7 below 1 year.

The Infantile Mortality (deaths under 1 year per 1000 births) is 23, a low figure. Last year it was 42. The Birth rate was 18.2 (births 307), of which 6.5 per cent. were illegitimate.

As to causes of death, Zymotic diseases claimed but two victims, Enteric fever one, and Measles the other, giving a small rate.

Phthisis and Tubercular diseases caused 43 deaths, 30 of which were due to the former; the rates per 1000 being 2.55 from both, and 1.78 for Phthisis alone. These are high rates for a country district. Last year, these figures were 1.82 and 1.53 respectively. Cancer caused 14 deaths, heart diseases 30, while respiratory diseases accounted only for 20, contrary to what might be expected. Two deaths occurred from hydatid disease, and one from encephalitis lethargica.

53 deaths were uncertified, or about 20 per cent. In 43 of these cases senility was assigned as a cause, or factor; and in 4, the age was but a few hours.

M. Tuberculosis.

(The following report is inserted by the County Medical Officer.)

At the beginning of the year, no measures were in operation for administrative control of Tuberculosis by the Local Authorities. The first step was to procure a proper tuberculosis register, and to ensure that every case notified was investigated and received what treatment might be available. It became at once apparent that some accommodation for urgent cases (Jan. 27) was required, and arrangements were made for use of the block recently added to the Combination Fever Hospital. The accommodation consists of 2 four-bedded wards, with kitchen between. Above are 2 bedrooms for staff. It is thus possible to keep the administration almost completely separate from that of the Fever Hospital. The first patient was admitted on Feb. 16, and these wards have since been in constant use. During the year, 25 patients were treated, of whom 3 died in Hospital, and 2 since discharge. Three were discharged not improved, and 9 improved. There remained in Hospital, at Dec. 31, 8, of whom 6 were doing well. The Nurse in charge of these wards deserves credit for her good work under considerable difficulties.

It will not be necessary to outline the vicissitudes of the Tuberculosis Scheme. It will suffice to say that, after a good deal of discussion with various bodies and individuals, a draft scheme was submitted to the Board, on June 24. The scheme provides *inter alia* for a sanatorium block at the Gilbert Bain Hospital, with a nurses' home and offices common to both institutions, and is really an attempt at unification of services and economical working.

The proposed erection of a sanatorium block in this situation has been much criticised, though it is supported by local medical men and by the Boards' officials. The gist of the matter is that any sanatorium in Shetland must be in the vicinity of Lerwick. It should face the South, and for economy's sake be run in conjunc-

tion with one of the existing Hospitals. There is no sheltered situation possible, and on all counts the Gilbert Bain site, though very near the sea, seemed the better.

As the matter is important, the scheme is here repeated in extenso.

1. Statistics.

It is not possible to give any exact estimate of the number of tuberculosis cases existing in the County owing to the lack of record. In the present year, to date, 47 cases have been notified in the Burgh of Lerwick and the Mainland District, and many unnotified cases are known.

It is thought that there cannot be less than 150 definite cases at any given time requiring consideration. Many more will be suspected, as is already shown by the results of school medical inspection. There can be no doubt that the disease is very prevalent.

2. Detection and Prevention.

No further measures can be suggested than those following the notifications of cases in the usual way. Efforts will be made by the Tuberculosis Officer to visit all cases as soon after notification as possible, enquire as to contacts, and to examine what contacts seem necessary.

A considerable number of early cases in schools will be brought to the notice of the Tuberculosis Officer (as School Medical Officer). It is hoped that he will have time to go into the environment of these cases, (as Medical Officer of Health), and to make some arrangements for their treatment and for the improvement of faulty conditions.

It is proposed to institute a Tuberculosis Dispensary for Lerwick and District. A nurse has already been appointed, combining the duties of Tuberculosis Nurse with those of schools and child welfare. There are no suitable premises available and the County Council have therefore decided to erect a small building adjacent to the proposed Sanatorium, which building would be available for all three purposes if considered desirable. The nurse appointed will not be free until October next, when a beginning of her duties will be made, utilising the Public Health Office at a suitable hour, say twice weekly. She will be expected to visit periodically all notified cases in her district, to encourage contacts to appear for examination, to advise as to simple sanitation, to report regularly to the Tuberculosis Officer as to progress of cases, and to keep a due record of her proceedings.

It is hoped that the Dispensary may eventually grow into an institution resembling that of more advanced towns, where

a careful watch is kept on doubtful cases which are helped in all permissible ways. It is scarcely possible to disentangle a great deal of this work from that of the Child Welfare Scheme, or School Medical Work.

In the country districts all District Nurses (not many as yet) will be asked to do similar duties, but no centres can at present be suggested to which patients or contacts could congregate. This will be apparent to anyone knowing the local geography.

These nurses are controlled by Nursing Associations and supported mainly by subscriptions. Grants are obtained from the Highlands and Islands section of the Board. It is proposed that all District Nurses should act as School, Tuberculosis and Child Welfare workers and that grants to their Association funds should be made by the bodies concerned. This matter has been already under the Board's notice (I.D.B. 94821 25/5/20).

3. Housing.

The homes of many patients are unsatisfactory. In such cases the County Sanitary Inspector will be asked to visit with a view to taking all possible steps to improve their condition.

4. Cattle.

Reports are conflicting, but the County Veterinary Surgeon is of opinion that much tuberculosis exists. No concrete proposals can be made at present as to remedies, but the question will be kept before the County Council.

5. Treatment.

(a)—*Institutional.* The only premises at present available are the wards recently erected at the Combination Fever Hospital, where a few late and early cases are at present accommodated. No maintenance grant has as yet been received, nor have the Board signified their official approval of this course.

It is proposed to erect a sanatorium adjacent to the Gilbert Bain Hospital with a Nurses Home, Laundry, Laboratory, Mortuary, etc, common to both institutions. The matron of the Gilbert Bain Hospital, it is proposed, could supervise the staff and finance could be simplified by the County Council paying the Trustees of the Gilbert Bain Hospital for services of staff and maintenance of patients. Two separate staffs in a small town would thus be avoided.

Early and late cases could be here dealt with. A few selected cases might need to be sent south either to a sanatorium with the Committee of which some arrangement is

made, or to anyone where a bed is available. But if the County Council is expected by the Board of Health to send all early cases south it is considered that the sanatorium, as planned, must be relinquished, and the present block in the Fever Hospital continued for advanced cases. This might at any time have to be evacuated should an epidemic occur.

The Board's letter of recent date shows that they understand the County Council's plan of combination with the Gilbert Bain Hospital, and it is noted that the architect of the Council has consulted with the Board's architect, but the allusion in the Board's letter to treatment of early selected cases at a sanatorium in the south is not understood. Draft sketch plans of pavilion and annexes are submitted. The total cost of the buildings is calculated at £15,785. The ground can be had at £247 per acre, three acres being required. No exact estimates could be provided within the time as to cost of furnishing, but it is not expected that this can be completed under £5000.

(b)—*Domiciliary*. In suitable cases, carefully selected, medicines and extra food will be provided up to 10/- weekly, in terms of the Board's circular No. 1, 1919. Where a nurse is available she will be asked to visit such cases and report, and elsewhere they will be visited by the Tuberculosis Officer when possible.

The Board provisionally approved the scheme, on 4th October, but asked for attention to some minor points. These were conceded by the Council in a reply on October 23, but the Council asked that the financial position should be made quite clear, which had not hitherto been the case.

Since the date of this letter, nothing further has been heard from the Board.

A number of patients have been in receipt of medicines and food; at 31st December, the number being 6. One patient was also in Sanatorium in Scotland, at the Council's charge. The Nurse appointed for Tuberculosis (part time) entered upon her duties on 1st December—(Lerwick and District).

The number of cases of Tuberculosis notified in 1920 was as follows:—

North Isles, 7; Mainland District, 50; Burgh of Lerwick, 20.

N. Maternity Service and Child Welfare.

A scheme of Maternity and Child Welfare was submitted to the Burgh of Lerwick, and the Mainland District Committee, on 30th November. It was pointed out that combination of these bodies for this purpose seemed most desirable, as the only part of the

Mainland District where work in this direction could usefully be carried out is in the vicinity of the Burgh, of which it practically forms a part, though not included in the boundary. (*See E and F above*).

A joint committee considered the scheme, and reported unanimously in favour of it, to both parent bodies. The District Committee approved the scheme, but the Town Council did not approve the principle of combination, and the scheme was thus rejected. It seems difficult to propose any solution to the difficulty, unless the Town Council will reconsider a decision which is really no economy.

The Nurse appointed for School, Tuberculosis, and Maternity and Child Welfare is doing what is possible unofficially, but it is very desirable that she should be properly constituted as Child Welfare Nurse for her area.

O. Notification of Births.

The Notification of Births Act is not in operation. A few notifications have been received from District Nurses acting as Midwives, but as a rule no attempt has been made to carry out the provisions of the Act. Until some action by the District Committee can follow on notification, this seems natural. The only hope of such action, (following on the initiation of a Maternity and Child Welfare Scheme of even an elementary kind), lies in the possibility of all parishes in the district possessing a parish Nurse. At present only Dunrossness, Bressay, Tingwall, Sandsting and Aithsting, possess nurses. The County Council have recommended this course, but the initiative must come from each Parish, and no practical result has as yet followed their recommendation.

As regards Lerwick and District, a Nurse is now available, and can be officially allotted (part time) to Maternity and Child Welfare duties as soon as the Local Authorities agree on a scheme satisfactory to the Board. It would then be necessary to inculcate on the public the proper observance of the Act. The Nurse referred to is meanwhile doing her best unofficially, and her work is satisfactory and valuable.

A Report has been forwarded to the Board, and the Central Midwives Board, in terms of the Midwives Act, a copy of which is here appended.

8th March, 1921.

“ THE SECRETARY,
 “ CENTRAL MIDWIVES BOARD,
 “ 49 LAURISTON PLACE,
 “ EDINBURGH.

“ DEAR SIR,

“ MAINLAND DISTRICT.

“ In accordance with your circular of 29th Decr.
 “ last I beg to report as follows :—

- “ (1) List of Midwives—4, (all district nurses).
- “ (2) Percentage of Births attended by midwives—
 “ unknown. (Births not regularly notified).
- “ (3) Cases of emergency reported—5.
 “ Dangerous feebleness of child—1.
 “ Prolonged labour—4.
- “ (4) Ophthalmia Neonatorum—Only one case notified.
 “ Relation to number of births attended not
 “ known.
- “ (5) Puerperal Septicaemia—None notified.
- “ (6) Still Births—None notified.
- “ (7) Salaries paid to Inspectors, etc.—Nil.
- “ (8) There is not much practical working of the Act in
 “ the District. Most district nurses register
 “ during their short stay in it, but no other mid-
 “ wives can be traced. None have registered.
 “ The working of the Act is not too easy.
 “ Though a Nurse may send from an outlying
 “ island or district for a doctor, communication
 “ is precarious and he will usually arrive too late.
 “ No stress has been laid on Notification of Births
 “ as yet, because no action can follow until some
 “ sort of a maternity and child-welfare scheme
 “ is evolved.

“ Yours faithfully,

“ JOHN CRAWFORD,
 “ Medical Officer of Health,
 “ Mainland District.”

P. Milk Supply.

With a few exceptions, the milk produce of the district is consumed where produced, but a few farms and crofts send in to the Burgh of Lerwick. The arrangements for supply and distribution are of an elementary kind. No proper storage is provided, and no proper arrangements for scalding or cleansing milk vessels. There are no registered dairies in the District, and no Bye-Laws made under the Dairies, Cowsheds and Milkshop orders. There are no byres which would conform to the conditions usually laid down in model bye-laws. There is evidence of considerable tubercular disease among cattle, and cases have come to the notice of the meat-inspector where a cow in milk has been slaughtered and found suffering from definite tuberculosis.

No action has been taken as to tuberculous milk. It is felt that to deal with this question properly, a pathological laboratory in the County would be necessary, and this seems at present impossible.

Q. Meat Inspection.

At the slaughter houses in Sandwick, Boddam, Scalloway, Voe, and Lerwick there is a system of meat inspection, especially at the latter place, where Mr Watt, the County Sanitary Inspector, who is a capable and qualified person, regularly attends. He can assist elsewhere, when required. No cattle are killed elsewhere in the district. A good deal of meat is sent into the district from the Burgh.

There are five butchers' shops in the district, and these are inspected when opportunity offers.

No industries relating to food are carried on, with exception of the herring packing, and a few bakeries at various places. There are no insanitary conditions involved.

The shops in various parts of the district where foods are exposed for sale have been usually found in a clean and satisfactory state.

R. and S.

No remark falls to be made under these headings. The Medical Officer of Health is not concerned with any duties under the Food and Drugs Acts, or under the Rag Flock Act.

T.

Two tabular statements are submitted on the prescribed forms.

(1) The return of cases of infectious disease shows that, under

the Infectious Disease Notification Act and Regulations made under Section 78 of the Public Health (Scotland) Act, 1897, 68 cases were notified during the year in the District. Of these, 50 were of tuberculosis, 5 being non-pulmonary. Nine of the pulmonary cases were admitted to Hospital. Of the remaining 18 cases, seven were of Erysipelas, three of typhoid, three of scarlet fever, two of chicken-pox, and one of ophthalmia neonatorum, malaria, and acute pneumonia, respectively.

Of these 18, only one, a case of erysipelas, was removed to Hospital.

(2) The Return of Infant Mortality shows that the Births occurring in Shetland were 301. The Registrar-General's figure, corrected for transfers, is 307, of which 20 were illegitimate.

Of these children, 7 died before reaching the age of 1 year.

Tubercular meningitis was certified as the cause of one death, and pneumonia as that of two. The remaining 4 deaths are uncertified, and occurred within a few hours after birth.

