

**Report to the Local Government Board for Scotland on the sanitary condition of the Lews / [by Frederick Dittmar and Alexander B. Millar] ; presented to both Houses of Parliament by command of His Majesty.**

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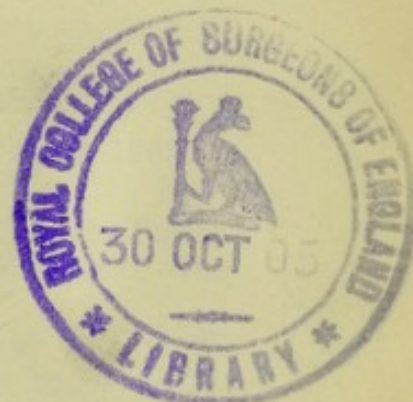
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**REPORT**  
**TO THE**  
**LOCAL GOVERNMENT BOARD FOR SCOTLAND**  
**ON THE**  
**SANITARY CONDITION OF THE**  
**LEWS.**

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# REPORT

TO THE LOCAL GOVERNMENT BOARD FOR SCOTLAND

ON THE

## SANITARY CONDITION OF THE LEWS

BY

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*Medical Inspector,*

AND

ALEXANDER B. MILLAR,  
*General Superintendent of Poor and Inspecting Officer under the  
Public Health Act.*

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### PART I.

VISITS TO TOWNSHIPS OF BACK AND TONG, IN THE PARISH  
OF STORNOWAY.

*The Secretary,  
Local Government Board,  
Edinburgh.*

STORNOWAY, 10th April, 1905.

SIR,—We visited the townships of Back and Tong, in the Parish of Stornoway, to-day, being accompanied by Dr. M'Donald, who kindly offered to go with us.

The local Medical Officer of Health, Dr. Macrae, who is 87 years of age, and has not been able to go out for some weeks, recommended us to Dr. M'Donald, while the local Sanitary Inspector, Mr. M'Leod, was busy preparing estimates in connection with the roads in the district for the ensuing year, and with other work for the meeting of the Local Authority on 12th current.

We have the honour to report as follows on the conditions found in these places:—

In the township of Back there are about 100 to 120 houses, of which some 20 or thereabouts belong, not to crofters, but to "squatters," who have built houses without permission asked or given on the part of the estate, and who live in these houses rent and rate free, the estate refusing, we understand, to accept rent even when offered.



The "squatters'" houses are, as a rule, in all respects, superior to the crofters' houses, and, indeed, in the majority of instances, are the only habitable houses in the place.

The "squatter" is usually the crofter's son or son-in-law, and follows the fishing. He is both willing to and actually does pay the crofter's rent, besides working the croft for the old people. His own house is built either on the croft itself or on the common grazing ground belonging to the township. When on the latter, land is usually trenched, &c., to form what is in reality a "croft" for the "squatter."

In Back we counted nine houses of superior construction, that is, of stone and lime, or of cement, or with cement gable walls, and roofed with slate or felt. All the other houses, with the exception of these nine, are of the following type:—

The walls are composed of two rows of loose stones with earth between, and are about 5 to 6 feet thick. Occasionally part of the walls (usually at the living and sleeping-room end) are of stone and lime. Sometimes they are formed wholly of turf.

The roof is composed of a wooden framework on which turf is laid and covered by straw thatching. In the great majority of instances the roof does not cover the whole breadth of the wall, but rests on the earth between the rows of stones. Although it withstands the Atlantic gales, this type of roof leaves a grass-grown space of about 2 feet between the thatch and outside wall, and allows of thorough percolation of the house-walls with moisture. The inside walls of the living and sleeping rooms are in most cases covered with a thin layer of clay which is white-washed.

The houses are entered through a door leading into the byre, and from it you either enter the living-room directly or through a door in the wooden partition. The floor of the house is simply the surface soil covered with a thin layer of clay, and the whole house can be described as consisting of three parts, all under one roof, viz.:—(1) a living-room in the centre, and on either side of it; (2) a sleeping-room, and (3) a byre.

The living-room, usually about 12 feet by 12 feet, contains a few chairs and a wooden bench or two, with, in some cases, a dresser. In the centre of the clay "floor" is a peat fire, the smoke curling up from which finds its way out by a hole in the roof or, as often as not, through the thatch and the door. What can be aptly described as "icicles" of soot hang from the roof beams.

One or two small windows about 2 feet square admit light; and in some cases the upper part of one of these can be opened.

Sitting around on the floor and, as a rule, in their stockings, are old women and young barefooted children. At times sheep, lambs, and other animals are added to these.

On one side of the living-room, and separated from it by a wooden partition 6 to 7 feet high, is the sleeping apartment, about 18 feet by 12 feet, or 12 feet by 12 feet. This contains two and sometimes three box beds arranged along one side of the room and covered by wooden roofing, which slopes *towards the wall* to keep off the rain which finds its way in through the thatch. Along the other side are placed three or four boxes which contain



the belongings of the household. The floor is of clay, as in the living-room, and there is no fire. The windows in the roof, or partly in walls and roof, are small, 2 or 3 feet square, and usually one at least is made to open. Where gable windows were provided we usually found these wholly open.

In some sleeping apartments there is no window at all, only a small hole in the roof about *9 square inches* in area.

At the other side of the living-room and separated from it by a similar wooden partition about 6 or 7 feet high is an apartment about the size of the sleeping-room. This is the byre. After one's eyes are accustomed to the dark and the smoke, one sees that in the byre there is a large accumulation of manure, about 3 to 4 feet above the level of the living-room floor. On this heap are standing one or two cows, and occasionally a horse and some sheep. Sometimes these animals are up to their knees in the manure. Irregular holes in the thatch provide entrance and exit for the fowls which nest in baskets hung against the walls.

The floor level of the byre is, as a rule, 1 to 2 feet below that of the living-room, and in some instances is said to be as much as 3 or 4 feet lower.

Human excreta, as well as that of the animals, are deposited here, there being no other conveniences.

Outside the houses the ground is sodden with water and drainage from the byres, and is altogether in a most unsightly and insanitary state. The drainage channels in front of the houses are often choked.

A little energy and attention on the part of the occupiers would greatly improve the immediate surroundings of the houses, as was seen in one or two instances where the entrance from the road to the house was gravelled after having been bottomed with larger stones. One squatter had a cabbage garden along the whole front of his living-room, surrounded by a 2 feet stone wall, and fenced by wire netting. His was the only cabbage garden we saw in the two townships.

The general state of the roadside water channels in Back and Tong showed room for urgent attention on the part of the road authority. Their condition was simply disgraceful. It is clear that little, if any, attention is paid to them.

Among these squalid and most miserable surroundings one is astonished to find healthy-looking young men and women. One is not surprised to hear that, as Dr. M'Donald informed us, whole households have to his knowledge been carried off by phthisis. The older boys and girls we saw looked fairly healthy; the young children under five years were miserable, puny, and anæmic-looking things. The old women, and those who had had a few children in these houses, all had a pale and anæmic appearance.

With the exception of nine houses, all those in Back are of the same construction as the one described. We took details of 20, and looked into many more in our walk through the townships. The stone and lime houses, built in many instances by squatters, are the only ones fit to live in, and cattle are not housed in them, there being no accommodation for this purpose. Only in one



squatter's house among the many we visited did we find cattle present, and in this case there was a clean swept passage about 3 feet in width between byre and living-room. It is only fair to mention that this house is in course of reconstruction.

Cattle-housing is the almost invariable rule, not the exception, in Back and Tong, and these townships are typical of others in the parish. The entrance to the houses is the same for cattle and human beings. In some instances there was a separate entrance built for the horse at the end of the byre.

Where two or three houses are built side by side, the side walls are partly in common, and the internal arrangements are such that the byre of one abuts on the sleeping-room of the other. There cannot but be percolation of fluid from the heaped manure in the byre of one house into the sleeping apartment of the next one. This condition of affairs is far from uncommon, it is the rule when two houses are side by side.

In some of the worst of the houses (for there are degrees of badness even here) one had to walk *over* the manure heap to get into the living and sleeping-room beyond, not merely past it!

In the township of Tong, where we examined several of the houses, the conditions are similar. There also the only habitable houses belong to squatters. In the others there are cattle-housing and all the other conditions as described for Back.

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## PART II.

### VISITS TO TOWNSHIPS OF ARNOL AND BRAGOR.

STORNOWAY, 11th April 1905.

To-day we visited the townships of Arnol and Bragor in the Parish of Barvas, accompanied by Dr Ross, local Medical Officer of Health, to whom we are indebted for much assistance.

These townships are divided by the river Arnol, and each stands on the slope of a hill, the river running between.

The houses being built in a continuous row towards the river, the lower ones are naturally exposed to the drainage from those standing at a higher level; and, as the walls are of the structure already described in the townships of Back and Tong in our Report of 10th instant, the drainage from the upper ones is bound to and actually does percolate into the lower ones.

### ARNOL.

In Arnol at the date of the Census in 1901 there were 45 separate crofts and 59 separate families. The number of squatter families was thus 14. The total population was 347. We fully examined three and entered about a dozen others, all being of exactly the same type, with the exception of three stone and lime houses already built, and one in course of construction.



With these exceptions, *every house* in Arnol is grossly insanitary, and could be certified as a nuisance under the Public Health Act.

There are two classes of dwellings in Arnol, besides the few stone and lime ones, both equally insanitary. In the one class of house, one enters the byre by a narrow and low passage, on either side of which is a horse stable and a sheep-pen. In structural continuity with the byre is the living-room, there being no semblance of a partition. Beyond the common living room and byre is a 6 to 7 foot partition separating this space from the sleeping room, which contains two or three box beds. In all the houses we entered there was a bed in the living-room also.

The walls are of the usual construction, two rows of loose stones with earth between. The roof is of the type already described. Inside there was no clay on the walls, only the bare and wet stones. The floors were clayed and the peat fire was burning in the centre of the living-room and filled the whole house with an irritating smoke. On the whole, the state of poverty of the inmates was even more abject than in Back and Tong, as in some cases there were neither chairs nor wooden seats, but merely a plank resting on large boulders on the floor. The houses were more than usually dark, the only light available in the living-room being through a pane of glass in the thatch about a foot square. In addition there were one or two irregular holes which acted as smoke and air outlets, but were probably not built for those purposes but to provide an entrance and exit for the fowls. These animals nest in baskets hung against the walls of the byre, and generally roost above the entrance door. The living-room, as stated above, is *one with the byre*, and one has to walk over and sink into the manure to get to it.

In one house we saw the wage-earner lying in bed (in the living-room) in an advanced stage of phthisis and expectorating on the floor. Around him were his wife and children. In this house there was no partition between the living and sleeping-rooms, and human beings and animals were living in one large room. In all there were in it nine people, of whom one was dying of phthisis, three cows standing above their knees in about 4 to 5 feet of manure, a sheep that had evidently just lambed, and a number of fowls.

All the refuse is deposited in the byre and immediately in front of each house. The result is that the approach to every habitation is through a sea of mud, filth, and liquid manure, which soaks into the foundations of the houses, while those standing at lower levels receive in addition the drainage from the upper ones. One sinks over the ankles in walking from one house to another, and a side slip would certainly mean over the boot-tops.

The other class of house is similar to that described in our Report of 10th, except that there is no partition between the living-room and byre, and that one enters the byre directly from outside, not through a dark passage with sheep-pen and stable on either side.

It is quite impossible to single out any particular house or set of houses which are worse than any others. They are all in a state that can only be called appalling.



The whole township and every house in it is uninhabitable and should be condemned, except the three or four stone and lime built ones.

The water supply for the whole township of Arnol is a single shallow dip well, exposed to obvious contamination by surface drainage, and almost inaccessible through the mud and bog. It was stated to us that an attempt was made some time ago to sink a new well in a better situation, but without success.

#### BRAGOR.

This is a township of about 120 houses, of which six are of stone and lime, while three of similar construction are in course of erection. Twenty-four of the houses were in the occupation of squatters at the date of the Census in 1901. The number of separate crofts was 107, and of separate families 131. The population was 704. In these townships the squatters do not go to the fishing, and the result is greater poverty than in the townships of Back and Tong.

We entered several houses and spent about an hour going round them as in Arnol.

The houses in this township are of the same type in every respect as those in Back and Tong, and cattle-housing is universal. No additional information could have been obtained by entering every house in the township.

The house occupied by two paupers (brother and sister) may be singled out for a fuller description, as it presented the worst features we have yet met among houses of this shockingly insanitary type.

A heap of manure about 6 feet high was piled up to within 2 feet of the narrow and low entrance.

Immediately on opening the swing door one was met by the ammoniacal odour from the byre and was conscious of walking on and sinking into manure. The darkness prevented one seeing anything at first.

Three cows occupied about two-thirds of the available space, and the darkness was so profound that one rubbed against them before seeing them. There was only a hole in the roof above the fire and one above the door through which light and air could enter, and unless the door had been open one could not have seen anything. Even with the aid of wax vestas, it was impossible to make out clearly the outlines of any single object. In a space about half as large as that occupied by the cows and about 18 inches above it (owing to the surplus manure being piled outside the door) there was the living and sleeping-room. There was only a wooden plank on the earth floor, resting on stones (at least that is all one could make out in the darkness), and no vestige of a bed, or bedding.

In this awful den, not fit for a pig, there are housed two wretched old paupers, who are compelled to crouch over the peat fire all night as there is no bed to retire to. One of the cows had a most suspicious hacking cough.

The living-room of the neighbouring house abuts on, and its wall is really a part of that composing the byre of this habitation.

Other houses in Bragor are of the same type as in Back and Tong, except that the byre and living-room are, as a rule, one apartment.



Cattle-housing is universal.

The condition of filth outside the houses is the same as in Arnol.

Every house, with the exception of the few stone and lime ones, is uninhabitable, and a disgrace to our civilisation. We give below some details regarding these Townships supplied by Dr. Ross, local Medical Officer of Health:—

TOWNSHIP OF BRAGOR, NORTH AND SOUTH, PARISH OF BARVAS.

Number of separate crofts, Census 1901,	-	107
Number of separate families,	-	131
Number of squatter families,	-	24
Population, - - - - -	-	704

TOWNSHIP OF ARNOL, PARISH OF BARVAS.

Number of separate crofts, Census 1901,	-	45
Number of separate families,	-	59
Number of squatter families,	-	14
Population, - - - - -	-	347

NOTE ON THE WATER SUPPLY OF THE ABOVE TWO TOWNSHIPS.

“In the case of these two townships, containing a population of over a thousand persons, the water supply is obtained from open, shallow, surface wells, simply dug to a depth of from 1 to 2 feet, usually unprotected by drains or walls, and often situated in ditches or other low-lying places, towards and into which the surface water from the surrounding arable lands, and in some cases the liquid sewage from the houses and byres, gravitates and percolates, not to speak of dust and other impurities blown into them by the wind.

“In dry weather most of these wells become dry; and then recourse is had to holes dug in swampy places, accessible only in dry summer weather. In these latter situations the sources of impurity are frequently more in evidence than even in the case of the majority of the ordinary shallow wells, so that practically all the year round foul water is used both for drinking and cooking by most of the people.

“An attempt was made a few years ago by the Local Authority to sink a deep well, to be built up and closed in and fitted with a pump in a central situation in each township. But both wells turned out failures and had to be abandoned.”

PART III.

LOCHMADDY, 16th April, 1905.

On 12th instant, we visited the townships of Lurebost, Balallan and Aridbhruaich, in the Parish of Lochs.

*Lurebost.*—In this township there are about 125 houses, of which about half are said to be occupied by crofters. Twenty-four are



stone and lime houses. The others are of the construction described in our previous reports, and cattle-housing is the rule as in other townships in Lewis. The township is built on the side of a hill with the road running through it, and the great majority of the houses are below the road and so receive all surface drainage from it, in addition to being naturally damp.

There are suitable sites on the upper side of the road, but we understand that the estate will not grant building sites there, as it forms part of the common grazing ground.

Here, as in Stornoway and Barvas Parishes, where two houses are built side by side, the sleeping end of the one is usually against the byre of the other, which, as often as not, is on a higher level.

The tenant of one croft (before our eyes) baled several buckets of liquid manure out of his byre which had come from the byre of the house above and, before reaching there, had percolated through his sleeping and living rooms.

There was the usual condition of filth around the houses. With the exception of the stone and lime ones, all are uninhabitable.

On our way to Balallan and Aridbhruaich we passed through the township of Laxay, where the houses are to a large extent of an improved type and do not permit of cattle-housing.

In Balallan and Aridbhruaich the conditions are similar to those described in Lurebost, and the houses there also are on the low side of the road.

#### CONCLUSION.

After having visited and inspected several townships in the Long Island (part of the County of Inverness) we were struck by the almost invariable superiority of the housing conditions there as compared with those in the Lews, which is part of the County of Ross. As the natural conditions are similar in both counties (although there would seem to be more congestion in the Lews), we fail to understand why, with an efficient Public Health administration, the disgraceful housing conditions in the Lews should not be improved. The District Clerk in Harris informed us that cattle-housing has been practically abolished there, and that proceedings are systematically instituted against offenders in the Sheriff Court. In North Uist district and in Barra (part of South Uist district) there are still a few cases of cattle-housing; in Barra the cattle-housing is mostly confined to cottars, who, in many instances, are paupers. In South Uist district (excluding the Island of Benbecula, which is free from it) cattle-housing does exist to a considerable extent, but proceedings are gradually being taken to have it done away with. It is clear that Local Authorities actively interested in Public Health have practically abolished cattle-housing, and the Local Authority responsible in the Lews should now proceed to take measures similar to those which have been successful in abolishing this nuisance in the Long Island.

The water supplies, with few exceptions, in the whole of the Lews and the Long Island consist of shallow dip wells liable to all kinds of surface pollution, and when near houses often situated in the most



low-lying and boggy ground. They are almost universally unprotected, and animals have free access to them. In some we actually saw ducks and geese disporting themselves. These dip wells only contain water during the winter months or in wet weather. In dry summer weather the people are obliged to go long distances, in many cases to the nearest mountain stream or loch. In the case of typhoid fever the shallow dip wells, which are so common, are certain to be contaminated by drinking vessels from infected households. A small number of the "wells" are now being protected with concrete walls and a pump placed thereon. The cost of providing a gravitation supply by forming Special Water Supply Districts in the Lews would probably be prohibitive—the rental being so low. The rates are already very high and the bulk of the population in many townships is on the verge of pauperism.

In suggesting a remedy for the state of matters existing in the Lews, it is our opinion that the Board should call on the Local Authority to carry out the provisions of the Public Health Acts. It is quite clear that since the passing of the Local Government Act of 1889, this Authority have done little to improve the conditions in the Island. We are of opinion that the Local Authority should, in the first instance, take proceedings in each township against those most able to bear the expense of erecting byres for their cattle. In the second place, strict measures should be taken to see that the surroundings of their houses are kept in a comparatively clean condition, and an example should be made of those who continue to deposit filth of all kinds immediately around their doors. In the third place, the Local Authority should see that the Road Authority keeps the side channels open and does not allow them to become silted up. If these matters were properly attended to, a beginning would at least be made towards improvement in the sanitary condition of the townships in the Lews.

It is only fair to state, in conclusion, that the active interest in and attention to the details of sanitary administration on the part of the Public Health officials in the Long Island have had the effect of putting these portions of the Hebrides in a more satisfactory sanitary condition than Lewis.

The appointment of an energetic Medical Officer of Health with a sufficient staff of trained inspectors (preferably from the mainland, but with a knowledge of Gaelic) over the whole of the Outer Hebrides from the Butt of Lewis to Barra Head is, we think, a question for consideration by the Board. We are of opinion that it would tend to efficiency in administration if a step of this nature were taken.

We have the honour to be,

Sir,

Your obedient servants,

FRED DITTMAR.

ALEX. B. MILLAR.

Appended are details of houses visited by us in various townships in the Lews, and also a series of photographs of houses.



# APPENDIX GIVING DETAILS OF CERTAIN HOUSES VISITED IN TOWNSHIPS IN THE LEWS.

## TOWNSHIP OF BACK—STORNOWAY PARISH.

*Visited 10th April, 1905.*

*Croft No. 1.*—Nine in house. House as in general description in Report. Living-room about 12' x 12'. Bedroom 18' x 12'. Byre 18' x 12'. Partitions between rooms of wood about 7 feet high, reaching a little above height of outside walls. Windows in living-room do not open. In bedroom upper third of one window opens inwards. Three cows in byre. Manure about 3 feet above level of living-room floor. In centre of living-room peat fire. Hole in thatched roof. Thatched roof rests on earth between walls. Outside filthy around house. Walls of dry stones.

*Croft No. 2.*—Six in house. Condition same as No. 1, but wall of house pointed. Windows of a better type than in No. 1, but that in living-room does not open. Two in bedroom do open. Manure in byre as in No. 1. Byre portion of house of loose stone. Loose stones in this case have been laid round gable of house to drain off surface water.

*Croft No. 3.*—Three inmates. Rather smaller than No. 1, but in other respects similar. Manure in byre about 4 feet above living-room floor.

*Croft No. 3a.*—Original Croft-house. All inmates have died of phthisis.

*Croft No. 4.*—Eight inmates. As in No. 1. Horse and 2 cows in byre. Manure about 4 feet above level of living-room. Windows in living and sleeping-rooms do not open.

*Croft No. 7.*—Four inmates. Smaller, but in other respects similar to No. 1, except that there is no partition between living-room and byre.

*Croft No. 5.*—Four inmates. Closed, but seemed to be same as No. 1.

*Croft No. 6.*—Seven inmates. Same as No. 1. One bed in living-room adjoining byre.

*Croft No. 7.*—Seven inmates. Same as No. 1. Part croft only.

*Croft No. 8.*—Five inmates. Same as No. 1. Squatter's house here with 6 inmates. One cow in house.

*Croft No. 9.*—Two inmates. Same as No. 1.

*Croft No. 10.*—Same as No. 1. Squatter house here.

*Squatter's House.*—Nine inmates. One cow and 1 sheep. Sleeping-end lime pointed.

A second squatter. Three inmates. Living-end mason built, byre-end pointed. Clean-swept passage between byre and living-room. Windows in living-room open. Felt roof over living-end. *Wooden floor in bedroom.* A damp course to house. Cabbage garden in front. Altogether a most tidy and well-kept house.

*Croft No. 11.*—Six inmates. Same as No. 1. Two cows, 2 sheep, 1 lamb. Horse here has separate entrance provided at end of byre.



*Croft No. 12.*—Two inmates. Same as No. 1. Squatter house here—two inmates. No partition between living-room and byre. One cow, 1 stirk, and a sheep. Manure about 4 feet in height, and almost blocking entrance.

*Croft No. 13.*—Six inmates. Same as No. 1. No partition between byre and living-room. Two cows and 1 horse on manure heap.

Squatter's house here. Five inmates. As in No. 1.

*Croft No. 14.*—Two inmates. As in No. 1. One cow, 1 stirk, 1 calf.

Squatter here on one-third of croft. Five inmates. Same as No. 1.

Squatter's house. House of cement; roof wood and felted. Chimneys at gable-ends; earth floor—one end of house—about two-thirds used as a barn.

*Croft No. 16.*—Five inmates. As in No. 1. One cow, 2 sheep.

*Croft No. 17.*—Closed.

*Croft No. 19.*—Three inmates. As in No. 1. No partition between byre and living-room. Two cows. Windows fixed.

*Croft No. 20.*—Seven inmates. Windows fixed. Three cows.

*Croft No. 23.*—Four inmates. Windows fixed. Two cows. Three feet manure heap above floor level. As in No. 1.

Two inmates. Very small turf-built house. No partition between living-room and byre. One sheep.

#### TOWNSHIP OF ARNOL—PARISH OF BARVAS.

*Visited 11th April.*

*House I.*—Thirteen inmates. To left of entrance, sheep-pen; stable on right; then byre and living-room form *one apartment*; peat fire in centre of floor. One cow. Bed in living-room and 2 beds in sleeping-room. No clay on walls. Abutting sleeping-room was a small apartment containing a bed, with potatoes stored underneath. Horse and sheep at end of this, partition between. Manure heap about 5 feet.

*House II.*—One-quarter of croft. Nine inmates. Same as last. Three cows, 1 sheep, and 1 lamb. A case of phthisis in this house. No partition between byre, living, and sleeping-rooms. Planks set on stones to sit on.

*House III.*—Eleven inmates. Byre and living-room one apartment. Partition between living and sleeping-rooms. Calf and hens. Pointed gable.

#### TOWNSHIP OF BRAGAR—PARISH OF BARVAS.

*Visited 11th April.*

Paupers' House, already fully described in Report, *see* p. 10.

*House of a Squatter.*—Seven inmates, including a pauper. Manure about 4 feet. Loom working here. To right of entrance is stable, to left a store, beyond common byre and living-room.

*A third house.*—Six inmates. Bed in living-room. No partition between byre and living-room. One cow and a calf.



## TOWNSHIP OF LUREBOST—PARISH OF LOCHS.

*Visited 12th April.*

*House I.*—Nine inmates. No partition between byre and living-room. One cow, 2 calves. Clay wall.

*House II.*—Two inmates. Partition between byre and living-room. Complete partition between living and sleeping-rooms. Two sheep. Wood roof to sleeping-room, with fireplace, and skylight in roof.

*House III.*—Seven inmates. Entrance through byre. Two cows. Six-foot partition between byre and living-room. Complete partition between living and sleeping-rooms. Bed in living-room.

*House IV., belonging to a Squatter.*—House only. No cow.

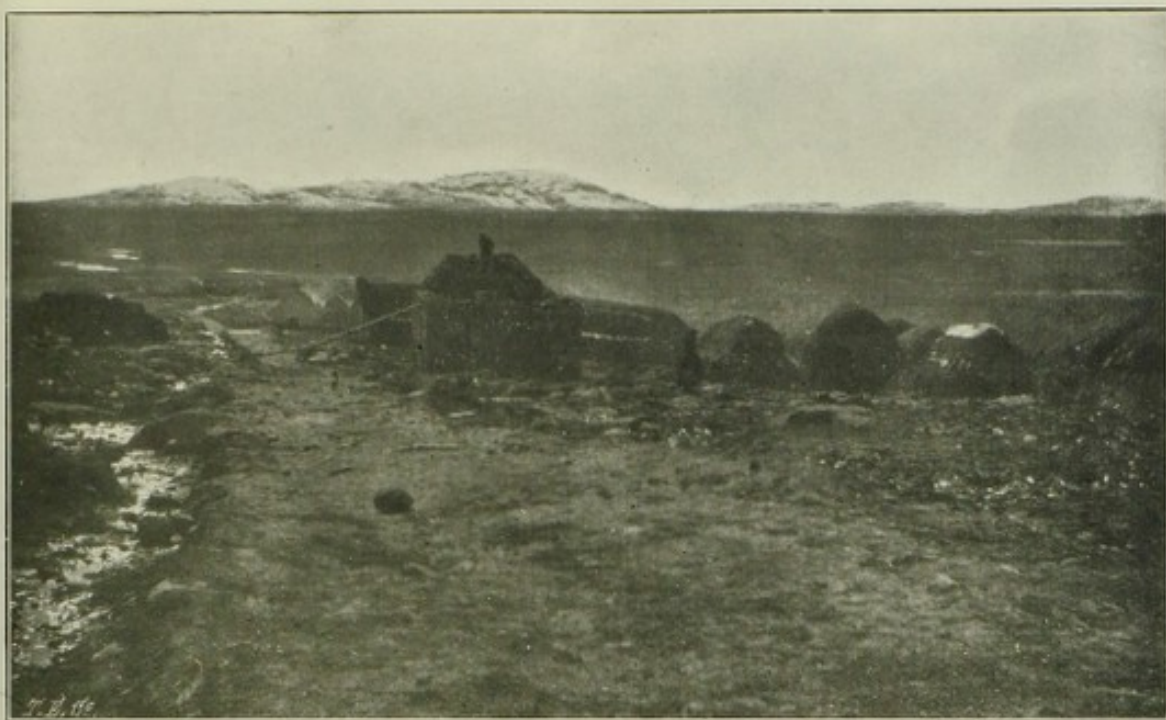
*House V.*—For description, see p. 13 of Report. Three inmates. One cow.

*House VI.*—Eight inmates. No partition between byre and living-room. Bed in living-room. Complete partition between living and sleeping-rooms. Manure about 4 feet. Two cows in all winter.

*House VII.*—Two inmates. One cow. Seven-foot partition between living and sleeping-rooms. Manure 4 feet.

*House VIII.*—Entrance through byre. Partition between living and sleeping-rooms. Loom working here.

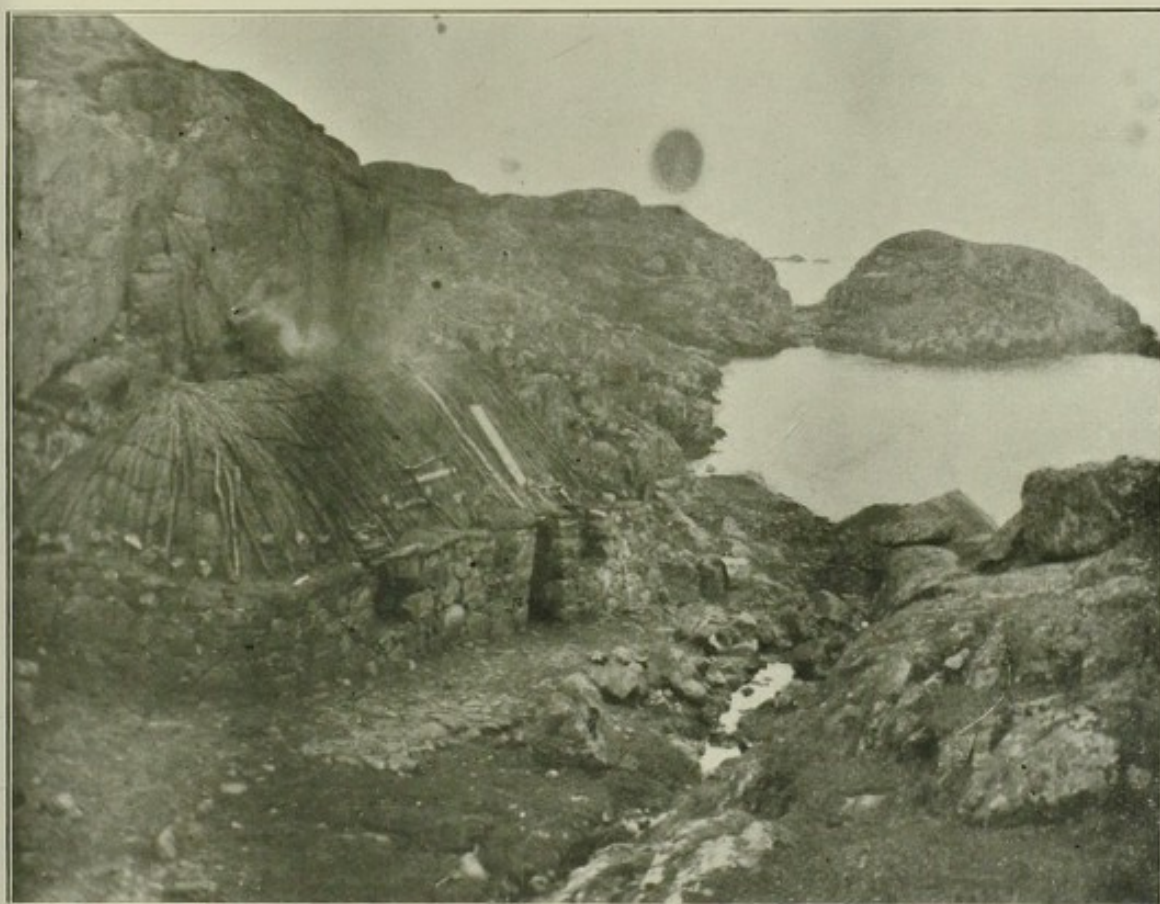




View in Bragor, Parish of Barvas.

Building of a Stone House.

*Note.*—Houses built on side of a hill, and so allow of drainage from upper ones flowing into lower.



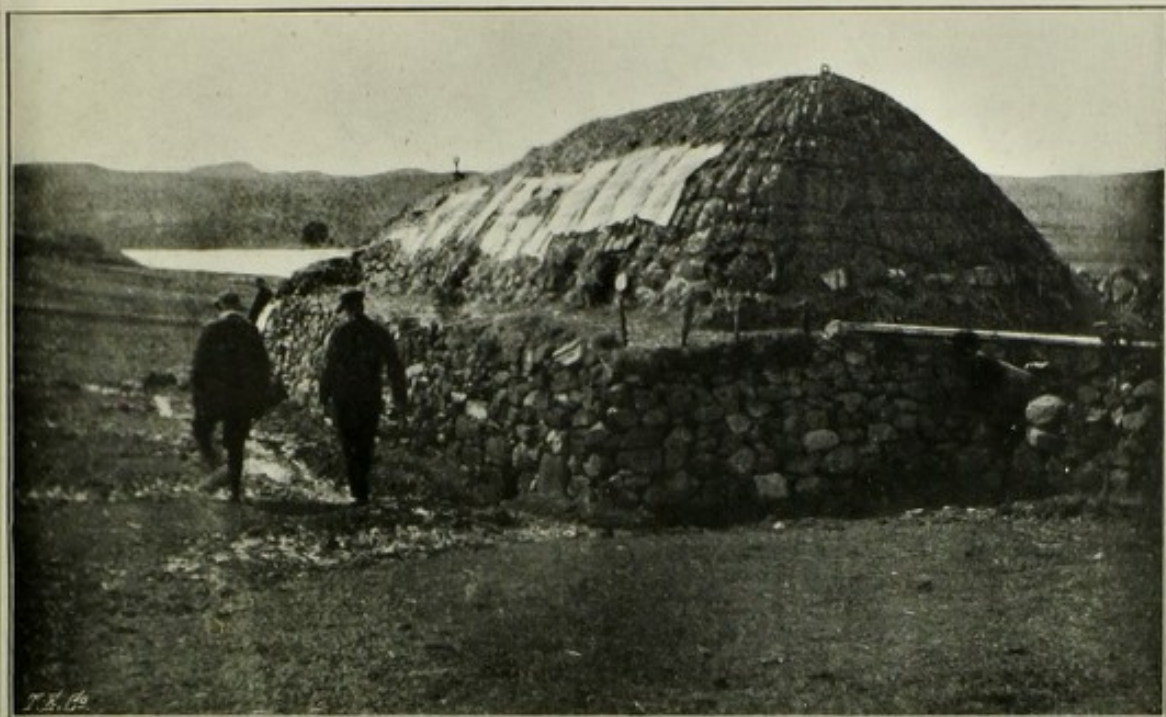
A row of houses on a slope leading to sea in the Bay of Harris.

Dr. Fletcher informed us that enteric began in top house and gradually spread to all the others at lower level from contamination of stream flowing past them—their drinking and washing water.









The day's washing on the roof. A typical house in Lurebost, Parish of Lochs.  
*Note.*—House built on slope ; Structure of walls ; Grass between edge of roof and outside :  
 Row of stones composing wall.



A House in Back, Parish of Stornoway.  
*Note.*—(1) Structure of house walls ; (2) Height of ditto ; (3) Rubbish heaps in front.









Paupers' House in Bragor, Parish of Barvas (see p. 10 of Report).  
Note manure heap almost blocking entrance.

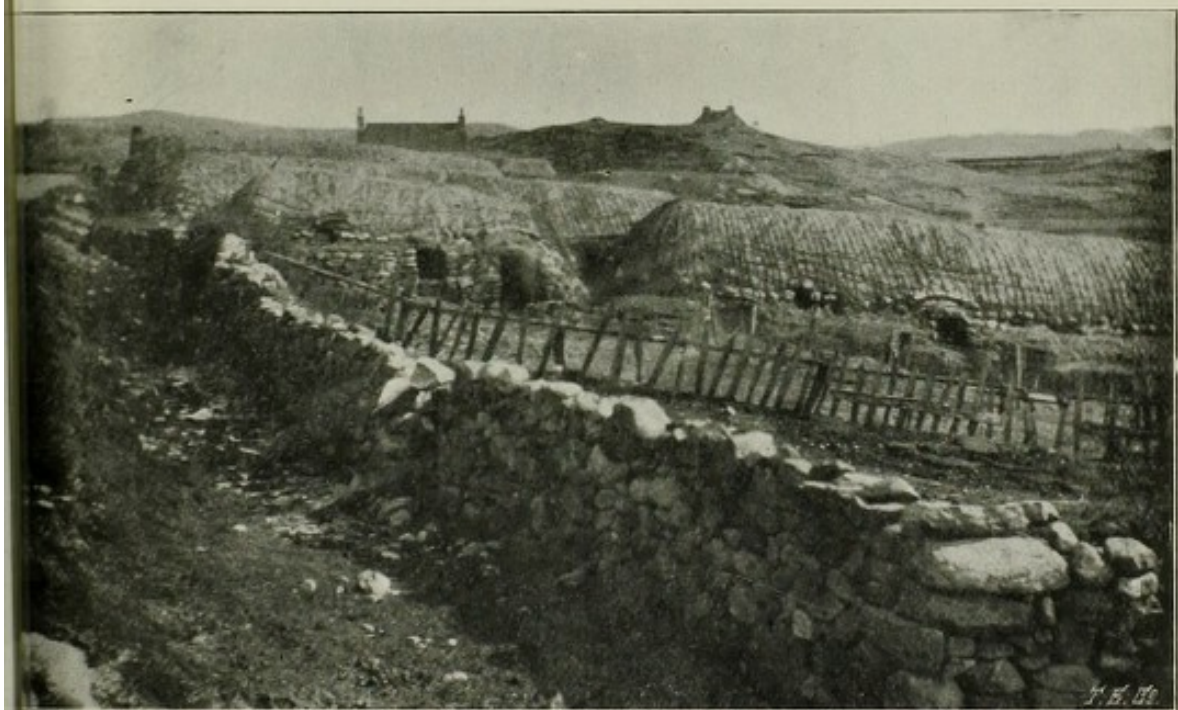








Ruins of a Turf House.



Lurebost, Parish of Lochs.  
Note houses built on a slope and on low side of road.



