

## **Third annual report of the Inverness District Lunatic Asylum : May 1867.**

### **Contributors**

Inverness District Lunatic Asylum.  
Cox, James.  
Browne, W. A. F.  
Aitken, Thomas.

### **Publication/Creation**

Inverness : Printed at the Courier Office, 1867.

### **Persistent URL**

<https://wellcomecollection.org/works/nqfsgq7s>

### **License and attribution**

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

12  
THIRD

ANNUAL REPORT

OF THE

INVERNESS DISTRICT LUNATIC  
ASYLUM.

---

**MAY 1867.**

---

INVERNESS:  
PRINTED AT THE COURIER OFFICE.

---

1867.

# INVERNESS DISTRICT BOARD OF LUNACY, 1867.



## I. For Inverness-shire and the Burgh of Inverness.

WILLIAM H. THOMSON, Esquire, Principal Sheriff-Substitute  
of Inverness-shire, Chairman.

Lord LOVAT, Lord-Lieutenant of the County of Inverness.

Colonel FRASER-TYTTER, Convener of said County.

ARTHUR FORBES, Esquire, of Culloden.

Colonel HUGH INGLIS of Kingsmills.

JAMES MURRAY GRANT, Esquire, of Glenmoriston.

FOUNTAIN WALKER, Esquire, of Moyers.

Captain JOHN FRASER of Balnain.

JOHN MACKENZIE, Esquire, Provost of Inverness.

Bailie DALLAS, Senior Bailie of Inverness.

## II. For Ross and Cromarty Shires and the Burghs therein.

Sir KENNETH S. MACKENZIE of Gairloch, Bart.

R. B. Æ. MACLEOD, Esquire, of Cadboll.

ALEXANDER MATHESON, Esquire, of Ardross, M.P.

THOMAS MACKENZIE, Esquire, of Ord.

DUNCAN DAVIDSON, Esquire, of Tulloch.

COLIN LYON-MACKENZIE, Esquire, of St Martins.

HECTOR MUNRO, Esquire, Provost of Dingwall.

JOHN MACLEOD, Esquire, Provost of Tain.

## III. For Sutherland and the Burgh of Dornoch.

GEORGE LOCH, Esquire, of Embo.

WILLIAM SUTHERLAND FRASER, Esquire, Dornoch.

## IV. For the County and Burgh of Nairn.

Sir JAMES ALEXANDER DUNBAR of Boath, Bart.

WILLIAM ALEXANDER STABLES, Esquire, Cawdor Castle.

### Clerk and Treasurer.

GEORGE ANDERSON, Solicitor, Inverness.

### Consulting Physicians.

J. J. ROSS, M.D., Inverness. | JOHN WILSON, M.D., Inverness.

### Asylum Staff.

Medical Superintendent . . . . .	THOMAS AITKEN, M.D.
Medical Assistant . . . . .	JAMES GORDON, M.B.
Chaplain . . . . .	Rev. ALEX. MACGREGOR.
House Steward . . . . .	Mr DAVID MACRAE.
Matron . . . . .	Miss ISABELLA ROSS.
Head Attendant . . . . .	Mr D. MACLENNAN.
Farm Steward and Gardener . . . .	Mr C. FINDLAY.



# THIRD ANNUAL REPORT

## OF THE

# INVERNESS DISTRICT BOARD OF LUNACY.

---

INVERNESS DISTRICT ASYLUM, July 20, 1866.

The patients at this date are 118 males and 105 females, being an increase of 13 males since the visit of 20th January. Of these numbers only 20 males and 9 females are considered curable. This unfavourable result is due to the large number of chronic incurable cases transferred from other Asylums at the opening of the Institution, and to the continued admission of hopeless cases from their homes. It is to be feared that the Institution will fail to afford to the district the full advantages which it is capable of bestowing, until measures be adopted for the transmission of patients in the early stages of their maladies. If parochial assistance be withheld till families are reduced to absolute pauperism, the results in many instances must necessarily be an incurable form of insanity, and a prolonged drain on the resources of the parish.

The changes among the patients since last inspection are, 24 admissions, 8 discharges, and 4 deaths. Of those admitted, one was on the order of the Home Secretary, one at the instance of the Fiscal, and one at the instance of the Board of Lunacy, under the 43d section of the Lunacy Act. The others were received on the ordinary forms. On admission, the physical condition was good in sixteen cases, moderately good in six, and weak in two; the mental affection was mania in sixteen cases, melancholia in four, dementia in three, and idiocy in one.



Of the patients discharged five had recovered, two were removed by friends, and one was claimed as a deserter by the military authorities. Of the deaths, one was ascribed to inanition, one to bronchitis with diarrhœa, one to phthisis, and one to exhaustion. The mortality during the past six months has been low, and has been limited to the females.

The general condition of the Asylum was very satisfactory. It was in excellent order, scrupulously clean, and well ventilated. Comparatively little progress, however, has been made in furnishing articles of decoration and interest, and there is consequently a want of that home-like look which it is so desirable to introduce into the dwellings of the insane. In a former report it has been stated that the object sought by the introduction of pictures, flowers, singing birds, &c., has a wider scope than merely a wish to please the eye. It is desired to engage the attention of the patients, to interest them in their surroundings, and to inculcate habits of self-control. Experience has clearly shown that their habits improve with every improvement made in their accommodation. They become more manageable, more attentive to their personal appearance, and more careful of their clothing and of the furniture of the establishment. The beneficial influence thus exercised upon them is not restricted to internal arrangements but extends to external surroundings; and herein is one reason, among others, why it is very important that no time should be lost in putting the terrace in front of the house, and the other grounds in its immediate neighbourhood, in ornamental order.

Various improvements in connection with the water-closets, urinals, and lavatories, have either been carried out or are in contemplation; but it does not appear that there is any intention of giving effect to the recommendations made in the two last reports of supplying additional furniture for the use of the aged, the infirm, and the sick. It is, however, very desirable that they should receive attention.

Both males and females were clean in person and tidy in dress. In bathing, one water now serves for two patients, and with the present supply it would not perhaps be prudent to furnish fresh water to each. No scarcity has been as yet experienced in this season, but the reservoir on the hill is scarcely sufficient in the event of a long drought, and it has therefore been prudently resolved



to enlarge it. The clothing was sufficient and in good order, but occasionally very much patched. Care, however, is said to be taken not to let the stock be reduced to too low a point. No difference seems to be made in the amount of summer and winter day-clothing, but it is stated that the temperature of the house during the winter was such as to ensure comfort.

The physical condition of both sexes is favourable. Only one male and two females were in bed from sickness or debility. In both departments great tranquillity prevailed, with the exception of occasional passing excitement caused by the visit. No one was in seclusion, and this mode of repression appears to be scarcely ever used. The register contains only six entries of its application since last visit, namely, five of confinement to bedroom to protect the attendants against assault by a dangerous patient, and one of dark seclusion as a remedial measure. Special contrivances in dress or bedding are little used, and no window is guarded, although the panes in every part of the house are of unusual size. Only 5 males and 6 females are registered as of wet or dirty habits. The introduction of night-nursing on the male side has had a very beneficial effect in reducing the number of wet beds, and in securing attention to the sick, besides imparting a feeling of confidence against danger or neglect. The difficulty of securing the services of a suitable and trustworthy person has hitherto delayed a similar appointment on the female side.

Industrial occupation continues to receive a due share of attention. At present about 60 men and 90 women are actively employed in the following manner:—

MALES.			FEMALES.	
Assisting Attendants in			Assisting Attendants	26
House . . . . .	12		Assisting in Kitchen	6
Stokers . . . . .	2		Do. in Laundry . . .	9
Storekeeper . . . .	1		Sewing . . . . .	36
Messenger . . . .	1		Knitting . . . . .	14
Tailors . . . . .	3			
Shoemakers . . . .	3			
Schoolmaster . . . .	1			
Gardeners . . . . .	6			
Carpenters . . . . .	2			
Labourers . . . . .	28			

The females continue to work in their separate day-rooms. It



is, however, worthy of consideration whether a common workroom—and the recreation-room might be used for this purpose—would not foster industrial tendencies, and enable supervision to be more easily and effectually carried out.

The means of amusement and recreation are limited, in a great measure, to the weekly dance and to occasional lectures and theatrical performances; and attention is called to the recommendation in last report of extending these means by the introduction of such sports as cricket, croquet, football, shinty, and curling. From education and previous habits, few of the patients are able or inclined to read, but many of them are amused by pictorial illustrations, and a greater supply of illustrated periodicals might be given with benefit. It is also worthy of consideration whether more systematic measures should not be adopted for instituting classes for reading, writing, music, &c. The formation of a musical band would be a great source of pleasure.

Exercise in the general grounds and beyond the bounds of the Asylum estate continues to be taken by all the patients not physically disabled. Only those who are sick or infirm are restricted to the airing courts.

About 100 men and 80 women dine in the general hall. The meals served during the visit were taken with decorum, and the tables were neatly arranged. The food was of good quality, well cooked and in abundant quantity, but with care the amount of debris from the tables of both patients and attendants might be considerably reduced. Milk is still supplied by contract, the intention of acquiring cows having in the meantime been given up on account of the cattle plague. The new piggery is in course of construction. It is strongly recommended that the amount of pig's meat sent from the Asylum should be daily gauged and reported on by the Steward or other responsible party.

Divine service is conducted as formerly, and is attended by about 66 men and 55 women. From its position above the kitchen, additional means of ventilating the chapel are desirable.

The wards set aside for private patients contain, at present, two males and one female. The rate of maintenance paid by them is £40. They take their meals apart from the other patients.

The following are the changes among the attendants since last visit :—



	Males.	Females.
Left voluntarily . . . . .	0	1
Dismissed for striking patient . . .	1	0
Do. for insubordination . . . . .	1	0
Do. for cruelty to patients . . . .	2	1
Do. for drunkenness . . . . .	1	0

Five accidents are recorded, but only one of gravity, caused by a fall in attempting to escape. The various registers were found carefully and accurately kept.

The very satisfactory condition of the Asylum reflects much credit on Dr Aitken, and his assistant, Dr Mitchell.

(Signed) JAMES COX, *Commissioner in Lunacy.*

#### INVERNESS DISTRICT ASYLUM, 23d March 1867.

This establishment was found in excellent order; the inmates quiet and, in general, contented, and their aspect indicating due attention to diet, cleanliness, and clothing.

The sanitary condition of the community is very satisfactory. Only three persons were found in bed; only thirteen are under treatment for bodily ailments; and although the pallid and anæmic cases are very numerous, not less than 154 are sufficiently robust and well disposed as to engage in active employment of some kind. From 15 to 20 men were occupied in removing the mounds in front of the house when it was visited, but this process goes on so slowly, and the mass of earth remaining is still so large, that additional efforts should be made to remove this deformity forthwith. Additional land has been brought into cultivation, but those portions which are not, and, perhaps, cannot be, reclaimed should be cleared of furze, and planted with copse, evergreens, &c., which will be readily furnished by the gentlemen in the neighbourhood, as the surface is at present bare and wild.

The industry of the females would be greatly promoted by pro-



viding a general workroom, in which their various occupations could be pursued; under superintendents who could devote their whole attention to the object in view.

The apartments were perfectly clean, well arranged, and the bed-clothes and day-dress of the patients satisfactory. The hair of both sexes is, however, allowed to grow too luxuriantly, and cannot be thoroughly cleaned. The dinner was attended by 107 men and 76 women. The meal was served in an orderly manner, and great decorum prevailed, as indeed it did in all parts of the house; but the room appeared crowded, and there was a little confusion while the patients were passing to their respective galleries. This might be remedied by making a selection of those permitted to meet in the public hall, and by arranging that the patients should enter and go out in the order of the tables at which they sit.

There are at present resident, 127 men and 110 women; of whom only 12 are deemed curable. There is no one absent on probation. The admissions since 20th July 1866 amount to 45, of which 39 were pauper cases, all belonging to the district. Thirteen persons have been discharged; twelve of them as recovered. Eighteen deaths have taken place. All the deceased were paupers. The average age at death appears to have been 49 years. With the exception of the fracture of a rib received in a fall during an attack of epilepsy, the accidents have been of the most trivial nature.

It should be noted here that in the summer and autumn of 1866 an epidemic fever appeared in the Asylum, during which 29 patients and six attendants were attacked, and three of the former died. A special report was made at the time by Commissioner Browne and Deputy-Commissioner Mitchell, and various suggestions made as to isolation, the state of the reservoir and piggeries, which have been to a certain extent carried into effect. It is worthy of remark, that after deducting the three deaths from fever and two attributed to exhaustion, which may be the termination of any disease, more than one-half (7) of the deaths are due to affections of the pulmonary organs.

The temperature throughout the house was, during the visit, extremely low. At certain points it could not have exceeded that of the external air; and, generally, the sensations conveyed were those of pain or discomfort. This was partly the result of having



the windows open, at which a strong wind entered, and of other arrangements dictated by a praiseworthy anxiety to secure ventilation. But even after the windows were closed and heated air was flowing in from the stoves, in dormitories where patients had retired to bed the cold was unpleasant. Great risks are sometimes run in the attempt to obtain the operation of *one* sanitary agent at the expense of others; and health may positively be sacrificed or endangered in the pursuit of fresh air. To the aged, the infirm, those of low vitality and imperfect organisation—and those classes constitute a considerable proportion of this community—low temperatures prove either positively fatal or induce formidable ailments, or, where neither of these effects follow, they disturb and depress mentalization. Where, then, the means exist, as in this Asylum, the temperature should not be allowed to fall below 50°, and afternoon fires should be lighted in the corridors and dormitories, and the heating apparatus should be brought into operation; all these means contributing, under due regulation, as much to ventilation as to warmth. A register of the indications of the thermometer should likewise be regularly kept; and this can now be done during the night, as the invaluable practice of night-watching has been instituted, on both sides of the Asylum. Since this arrangement was commenced considerable improvement has been effected in the habits of the degraded class. Last night only four beds were reported as soiled.

The walls are now ornamented by a number of prints, which add to the clothedness and cheerfulness of the interior. Among the minor comforts or amenities, may be mentioned the supply of dry towels every morning, in the proportion of one to four individuals.

From the staff there have been discharged—Alex. Kennedy, for breach of rules; John Murdoch, as unfit; George Gordon, for intemperance.

The statutory, &c., requirements as to registers, orders, &c., have been complied with.

(Signed)

W. A. F. BROWNE,

*Commissioner in Lunacy.*

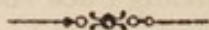


# Abstract of the Proceedings of the House and Visiting Committee

OF THE

## INVERNESS DISTRICT ASYLUM,

*For the Year 1866-67.*



### COMMITTEE FOR 1866-67.

*The Chairman*—SHERIFF THOMSON.  
Colonel FRASER-TYTTLER, Convener  
of the County of Inverness.  
ARTHUR FORBES, Esq. of Culloden.  
FOUNTAIN WALKER, Esq. of Foyers.

JOHN FRASER, Esq. of Balnain.  
Dr JOHN MACKENZIE of Eileanach.  
W. A. STABLES, Esq., Cawdor Castle.  
Provost LYON-MACKENZIE, and  
Bailie DALLAS of Inverness.

The District Board of Lunacy having appointed this Committee, at their Annual Meeting of the 13th July 1866, with large powers, to enable the details of the Asylum management to be efficiently conducted, the Committee have since then held nine meetings. At some of these arrangements were only commenced or advanced a stage or two, and as little interest could attach to a narrative of each successive step, it has been deemed preferable to report the following abstract of matters fully matured and carried through.

A low fever having broken out in the Asylum in August 1866, full powers were conferred on Dr Aitken by the General Acting Committee for checking it, and he was successful in doing so alone, without calling in the aid or presence of any of the Committees or Members of the Board, only three deaths having occurred out of 30 cases. The Commissioners in Lunacy and consulting Physicians, after a minute investigation, were satisfied that the fever had not originated in any defective structure of the buildings or sewage pipes, but had been introduced from without.



On the 10th November 1866, the Committee met to decide on the samples and tenders for provisions for the ensuing year, lodged in conformity with the usual advertisement, and after a careful examination, the tradesmen previously supplying the house were, for the most part, continued, and all those whose goods were preferred have since given entire satisfaction.

At the meeting on 18th December, Dr Aitken was authorised to have a number of small alterations, which he suggested, on the internal arrangement of the wards carried through, and certain necessary articles supplied; and the resident engineer was directed to report on the cost and best mode of introducing separate water-pipes into the house, for culinary and drinking purposes, from the best wells on the Board's grounds, and also to have certain defects in the steam-boilers and heating flues rectified; while the attention of the working staff of the establishment was directed to the strengthening and repairing the embankments of the main water pond, which had shown symptoms of leakage.

At the next meeting, on 13th February 1867, estimates were produced for repairing the water reservoirs, but it was found unsafe to empty them for repairs, the dry spring season being at hand. Dr Aitken, in addition to other minor details, was, on that occasion, allowed to employ a good jobbing tailor for mending the patients' wearing apparel; and for having the trees and plants in the ground, destroyed by the winter frosts and by rabbits, renewed; and at the next meeting (on 21st March), besides the usual and stated minute inspection of the whole house, and its inmates and officials, the Committee gave directions for improving the kitchen boilers, and for preventing an escape of steam, which threatened to injure the woodwork in the floor of the chapel above the kitchen ceiling; the night watchman's wages being also increased from £32 to £40 a-year, and several small furnishings ordered.

The new piggery contracted for by the Board, in a situation sufficiently distant from the laundry and farm offices, so as in no wise to be offensive or dangerous to the health of the inmates, having now been finished, the accounts for the balance of the contract prices, including the construction of an additional cess-pool, were passed at the meeting on the 13th April, and various other states and accounts connected with the maintenance of the house were examined and certified.



At the Committee's meeting on 3d May last, they had the satisfaction of witnessing the efficient working, by a gang of the male patients, of a new small portable railway, procured by order of the Board, for the removal of the damp earth and gravel from the foundations of the buildings, and for facilitating the formation of the ornamental walks and terraces around the Asylum. This railway promises to be of much use in speedily getting rid of any banks of earth or sand required, and also in affording healthy and interesting employment to the patients. A slight change in the dietary was permitted to be tried, and a new retort for the gas-works, a German clock for each sick ward, a case of mathematical instruments, and a barometer and thermometer, were ordered at this meeting. On the same occasion, likewise, a conference was held with Mr Hitchins, factor on the estate of Kinmylies, on which the Asylum grounds are situated, in regard to the disposal of the surplus sewage of the establishment, which threatened to be offensive to the neighbourhood; and arrangements have since been entered into, under the superintendence of William Paterson, Esq., C.E., Inverness, by which the sewage, so far as not used for the farm and garden of the Board, has been safely carried away.

Besides the proceedings above mentioned, the Committee also, at their quarterly meetings, examined the claims and accounts for furnishings and provisions for each preceding quarter, and sanctioned their payment; and likewise saw that the Treasurer exhibited vouchers for the sums previously drawn and paid for through him.

# THIRD ANNUAL REPORT

## OF THE

### INVERNESS DISTRICT ASYLUM.



At the termination of the year ending 17th May 1866, 219 patients were resident in the Asylum, and during the past year 66 patients have been admitted, of whom 36 were males and 30 females. Of these, 27 males and 24 females had not been previously under treatment, 5 males and 3 females were transfers from other Asylums, and 4 males and 3 females were private patients. Of these admissions, after taking into consideration various causes likely to interfere with successful treatment, 32 only can be set down as curable, leaving 35 in which it will be possible to affect little in behalf of the patient. Of those deemed curable, two had only attained the age of 16, and one of 17 years, the mental affections being the result of arrival at the period of puberty in one case, in another of exhaustion following upon fever, from want of proper support, and in the third of masturbation, three of the most prolific causes of insanity in early youth.

The physical condition of the patients admitted was generally satisfactory. Thus—36 were in good health; 14 in moderate health; and two in a state of exhaustion. In one of these cases the patient laboured under profound melancholia, and for three weeks, under the delusion that the food was poisoned, had absolutely taken no nourishment. Immediately after admission, diarrhœa set



in, and notwithstanding every effort made to sustain her, she rapidly sunk and died. The second case, also that of a woman, a dement, suffering from amaurosis, it was possible to support somewhat longer, but the grounds which dictated her obstinate refusal of food were never ascertained. She was extremely emaciated, and for a long period had lived in a garret, never venturing out, and obtaining support in a manner not well ascertained by her friends. She was perfectly etiolated, and furnished another striking illustration of a fact of frequent observation here, that patients—long secluded from the action of light—are rarely susceptible of mental improvement, and when an effort is made to restore vigor in the system, and this has to all appearance actually taken place, it has only been temporary, and has rapidly given way to an irritative state of the system, which has passed into a low typhoid condition, terminating in death.

It is to be regretted that the sanitary condition of the community cannot be so favourably reported upon as on previous occasions; and the year has been distinguished by the occurrence of an epidemic of fever. The disease was ushered in by a feeling of malaise, extending over a period of from three to ten days, by chilliness, occasionally rigors and pains in the bones, generally of the most excruciating character. In four instances the premonitory symptoms were exceptional. In two there was profuse epistaxis; in one copious hæmorrhage from the bowels; and in one case, that of a female attendant, who up to that moment had been in her usual health, syncope. At this period, and for several days afterwards, the pulse was undisturbed, often below the average, and ranged from 60-64 in the morning, to 72-76 in the evening, in the slighter cases; in those more severe in character from 80-84 in the morning, to 96-100 in the evening, and never rose higher, except in the fatal cases, when, after the third week, it reached to 112 in the morning, and 140 in the evening. In all instances it was small, and at first dichrotic, but lost this character as the disease advanced, and the heart's action continued throughout extremely weak. The stomach was little affected, and though its want of sympathy might be attributed in dementes to enervation, that irritability of the organ was not a prominent feature, was evidenced in the case of the attendants who suffered from it not being affected by anorexia and vomiting, and by the little difficulty experienced in nourishing those who came



under treatment. In one case alone vomiting proved troublesome, but this was towards the end of the disease, when the patient, apparently recovering, was attacked by gastritis, which proved fatal. The tongue was moist, coated by a thick creamy fur, through which enlarged and congested papillæ forced themselves; in one or two cases it was simply congested, and in all, towards the fourth week, it had a flannelly aspect, and in those proving fatal it became dry and brown. There was marked pain and gurgling in the right iliac region, in most instances a tendency to constipation, and in none was the crisis of the disease marked by a diarrhoea or other critical discharge. No lung complications required to be dealt with, and unfortunately the time of the officers was too much occupied to permit any observations being made in regard to the secretion from the kidneys. In three instances only a rash was observed, but the rose-coloured papules were few in number; and in two of the fatal cases the skin presented a diffuse congested appearance, very similar to that observed in typhus. In the nervous system little disturbance was manifested, and it is a curious fact, deserving of special attention, that the only cases of delirium occurred in attendants, for an attack of violence which supervened in one of the patients could not be designated the excitement of fever, as the man, when in his usual health, was subject to paroxysms of a similarly sudden nature. To complete this general description, it is to be remarked that relapses occurred in several instances amongst the nurses, but in every case it was attributable to a too great self-confidence as to the real condition of their health, and a laudable desire to resume their usual occupations. Special reference appears also necessary to be made to the extremely severe pain suffered in the bones, which came on in the more serious cases in paroxysms twice daily, and was accompanied by rigors, a brief stage in which the fever was exaggerated, and ultimately by a stage of profuse perspiration, which gave relief. This was, in every case, relieved by quinine, in extremely full doses; but so formidable were the attacks, that those subject to them looked eagerly for the administration of the medicine. The maximum temperature noticed was  $104^{\circ}$ , and the average duration of the disease was six weeks. From, therefore, the clinical history of the fever, but more especially from the mode of its invasion, the dichrotic nature of the pulse, the character of the tongue, and its duration, it would appear that the



disease was typhoid, modified by special circumstances somewhat difficult to determine.

During the epidemic 28 persons were attacked—15 males and 13 females. Of these, 8 were male patients and 9 female patients, 6 were female attendants and domestic servants, 4 were male attendants, and 1 was an officer of the establishment. Of these all recovered with the exception of 3 aged females, so that the deaths only amounted to 1 in 10 from this cause, or half the ordinary mortality.

It is not possible, I believe, to attribute the origin of the epidemic to any specially defective sanitary part of the establishment; and though a larger number of cases occurred in particular rooms, these were not proportionally the most crowded parts of the Asylum, and in the female end were the abode of the infirm and those most likely to be affected.

When it was evident the disease had become epidemic, the then consulting physician, Dr Ross, was called in, so that nothing might be left undone which prudence might suggest, and at the same time the condition of the establishment was reported to the General Board of Lunacy. Within a few days afterwards, Commissioner Browne and Deputy-commissioner Mitchell officially visited the Asylum, but were unable to detect, as previous careful examination had failed to do, any defect in the sanitary arrangements. They remark, however, on the impurity of the water, and express an opinion, that "although they are unable to connect the present outbreak of illness directly with this cause, nevertheless they think it probable it may have lowered the general regime and tone of the inmates, and so made them more susceptible to disease." They also directed that the isolation already attempted should be more perfectly carried out; and this was accomplished by appropriating two dormitories for the sick at each end of the Asylum, which could be perfectly shut off from all communication with the other parts, and special nurses were appointed to wait upon the sick, between whom and the other inmates all intercourse was prohibited. This step was followed by the best results, and only two new cases occurred after these arrangements, maintained for upwards of three months, were carried out.

It is not, I believe, possible to form any decided opinion regarding the origin of the epidemic, and the most probable is, perhaps, that suggested by the visiting Commissioners in the official docu-



ment already quoted—that it was introduced from without. Investigation also ultimately pointed out a direction in which this might have taken place; but it is to be remarked that conditions do exist in connection with the surroundings of the establishment which, if not capable of producing, must at least introduce elements predisposing to such an epidemic. Apart from the question of food, believed to be sufficient in quantity and satisfactory in quality, the most important of these is the supply of water, still insufficient, with such long periods of drought as have existed since the opening of the Asylum; and the bathing of the patients—one of the means best calculated to maintain health, and above all important when many of the inmates pay little regard to personal cleanliness—had to be abandoned for weeks. It also requires to be pointed out that a marsh within Dunain Wood and surface drainage are the principal means for the supply of the establishment with water, which reaches the pond after undergoing little, if any change, for the hard and impermeable boulder clay, immediately underlying it, impedes any filtration it might otherwise be subjected to. Between the pond and the tank, in which the water is collected previous to being introduced into the house, it is joined by surface drains bringing in water of a somewhat similar quality, but not containing perhaps so much organic matter, and though after this it passes through a filter, it still, especially during the summer and after a period of drought, reaches the Asylum in an impure condition. To obviate any injurious effect resulting from this, it has been proposed to convey into the house, by distinct pipes, the water supplied by the well at the upper part of the grounds, and which, from the analysis made by Professor Anderson of Glasgow, is evidently of excellent quality, and the suggestion appears to be well worthy of consideration. Immediately, also, behind the Asylum, and reaching to a considerable extent up the face of the slope, there exists a marsh undoubtedly capable of supplying elements which might aid in the production of such an epidemic; and it is a point of some importance, and requiring consideration, whether the well marked attacks of pain and their attendant symptoms might not be attributed to slight malarious influence. It is besides necessary to take into consideration that the court formed by part of the centre block of the main building and the refractory ward requires additional drainage,



and that the large mass of earth immediately behind it prevents a perfect ventilation of the male department.

It is not, of course, intended to lay too much weight upon these points, for medical science has not yet determined how far such elements influence epidemics of the nature here described. That they do exercise some influence, however, is undoubted, and it has been therefore judged of importance, in a report having for one of its principal objects the sanitary condition of the establishment, that the subject should be brought prominently before the District Board; and I now respectfully submit these facts for their consideration.

The number of patients dismissed during the year were 21, 19 of whom had recovered, and 2 were improved. Seven of these cases, however, had been admitted during the two previous years. Of the 32 patients—15 males and 17 females—deemed curable, 21 were restored to mental health; and if 2 cases be taken from each sex, as being placed at too advanced a period of the Asylum year under treatment, it will give an average of 43 per cent. of recoveries, or 41 per cent. for males and 45 per cent. for females. The longest period of residence in the Asylum was that of a hypochondriac, who had been an inmate for  $2\frac{1}{2}$  years; and the shortest that of a case of acute melancholia, following rheumatic fever, who in two months was sufficiently restored to resume his occupation of gardener; while the average length of treatment amounts to five months and one week. Previous to admission, 2 patients had suffered from mental disease for 24 hours, 1 for three days, 2 for a week, 2 for a week and a-half, 1 for two weeks, 3 for three weeks, 1 for three weeks and a-half, 2 for six weeks, 1 for three months, 2 for four months, 1 for five months, and 1 for ten years; and, as on former occasions, it has again to be pointed out that the restoration to health was in relation to the promptitude with which patients were placed under treatment.

The dismissal of the patient referred to, who had been so long an inmate of an Asylum, became a matter of grave consideration, and was only determined upon after the most careful observation, and sufficient proof had been obtained of the propriety of the step. Originally of a pliant disposition, if not of weak mind, this woman, as is so often the case with such natures, displayed an



incompatibility of living with her family, and having conceived the idea that it was their object to rid themselves of her, she set out for Glasgow, with the purpose of becoming a domestic servant. Failing in this, and naturally impulsive, she abandoned herself to the guidance of one of her own sex of questionable character, who, with the readiness of her class, detected her weakness and natural excitability. She gave herself up to every variety of vice, lived a life of appalling dissoluteness, and too passionate to appreciate those principles which form the best support under temptation, she failed to derive aid from those who, with the tenderness of sisters, endeavoured to bestow upon her moral and religious instruction. Even the sterner discipline of a prison produced no effect. She was only liberated to fall again and again, to set at defiance every feeling of gratitude, and to commit crimes which, had she been capable of self-control, she must have known were certain of detection. At last the true nature of the case was recognised, and she was sent to an Asylum, as suffering from moral insanity. During a residence of many years she was a source of continual anxiety to the officers, but after her admission here the only morbid manifestation exhibited was a too great sensitiveness and readiness to believe that the accidents or faults committed in her ward would be attributed to her. In a short time, however, this passed away. She became a useful and trusted inmate, was permitted to go to town alone, and conducted herself on all occasions with the greatest propriety. This favourable condition having existed for two years, it was judged justifiable that she should have an opportunity of testing her strength to struggle with the ordinary difficulties of life. She was accordingly liberated, and it is believed that if judiciously dealt with, and if sufficient interest be displayed in her welfare, that the self-control arrived at after years of Asylum discipline, may be perfectly maintained in conditions so much less favourable for its exercise in the outer world.

In such an instance as this it is somewhat difficult to arrive at the conclusion that the acts committed by the individual are not simply the results of a depraved rather than an irresponsible mind—are not, in fact, the wilful tendencies of a mental constitution rendered profligate by familiarity with vice. The link, however, here apparently wanting, and which was alone furnished by the low physical conformation of the individual, is fully supplied by another



case of a similar nature in the Institution, in which, in place of the instincts, the moral nature is perverted. The patient, a man, gifted with powers which might have led to a creditable position in society, has on all occasions failed to restrain himself, without any definitely appreciable cause, in the situations he has held, though on every occasion he has had the strongest interest to do so. Whilst under restraint, difficult to determine wherein his mental infirmity consists, beyond a morbidly haughty reserve, hypochondriacal symptoms, and unjustifiable suspicion of the motives of those under whose care he is placed. Free from control, the mere contact with the world gives rise to irregularity of conduct, a desire for stimulants, excessive indulgence, acts setting at defiance all social law, maniacal agitation and delusion. Placed in an Asylum, he was liberated to break the promises of reformation he had made, and years of prison discipline only served to regulate his conduct for a few weeks from the date of his dismissal, and terminated in his seclusion here, and though promising amendment if again tried on probation, there can be little doubt of the termination of such a trial. Having several times experienced slight congestive attacks, proceeding on one occasion to brief unconsciousness, and suffering from a strong hereditary taint, members of his family having suffered from insanity and phthisis, no doubt can exist as to the nature of his conduct.

It is true, that it is difficult to admit mental disease in such instances, and especially when the patient during examination perfectly appreciates his position, plausibly excuses his overt acts, and betrays an acuteness of intelligence which may baffle those engaged in the investigation. As pointed out, however, in last report, it is an error to consider insanity as merely an intellectual disease, and there seems now little reason to doubt that our higher emotions, as well as those of an opposite nature, are as much under the influence of bodily conditions, and from their extreme mobility it can be easily understood how they may be even more so than the higher mental faculties. It is, in fact, more than probable that the intellect is secondarily involved, and just as various causes acting upon one portion of the nervous system may give rise to convulsions, epilepsy, and allied diseases, so may the higher nervous centres, when affected by injudicious training, self-indulgence, hereditary taint, and various functional disorders or actual



physical changes, originate impulses of simple extravagance on the one hand; or those of a degrading nature, violation of all laws, civil and moral—it may even be acts involving the welfare or life of the individual, upon the other. The difficulty, indeed, in determining, in the lower forms of affective or emotional insanity, where responsibility ends and irresponsibility begins, has of late years assumed a character of great importance in medico-legal investigations, and experts have far too frequently had their opinions unjustly questioned. But this appears to be simply from the opposite points of view taken by the two professions who have to deal with such questions. In the one, mind—or the various faculties, which, in combination, are so named—is viewed too much in the abstract, and apart from bodily conditions; whilst those who have to deal practically with insanity, and who daily have evidence presented to them of the influence of variations from health, become more and more impressed how slight, under certain circumstances, may be the conditions which lead to morbid mental manifestations. If, as was very recently reported, the irritation caused by a fragment of straw which had forced itself into the sensitive part concealed beneath the nail of one of the fingers, was capable of giving rise to acute maniacal excitement, is it not still more probable that diseased conditions, affecting directly the nervous centres, through which sensibility and consciousness manifest themselves, and entering, it may be, into their very constitution, may give rise, according to the extent of their affection, to forms of mental disease, varying in degree according to their intensity. To arrive at just conclusions, in cases where moral insanity is suspected, it is above all necessary to have satisfactory information regarding the daily life of the individual, and to compare this with his bearing at the time of the criminal act he may be accused of. It will also be especially necessary to ascertain if hereditary tendency exists, if any taint or vicious habit has been recently acquired, and the individual must be considered in relation to his family and social position. Such facts as these ought, at least, to have as much authority as circumstantial evidence, on which decisions of great importance frequently depend. But in the investigations experts are called upon to make, such considerations are allowed to have little, if any weight; and they are asked to decide upon the condition of the individual whose responsibility



is questioned, under circumstances in which, with more than the acuteness of the sane mind, he stands upon his guard, removed from all the sources of irritation best calculated to exhibit the inherent weakness of his mental constitution. The few examinations they are also able to make do not allow time for the establishment of familiar intercourse with the accused, and it is well known that familiarity with surrounding circumstances sometimes leads to the manifestation of peculiarities which might otherwise have remained concealed. To deal, then, satisfactorily with those suffering from such low forms of mental disease, not only should due weight be given to the indications brought forward, but far more extended means of observation should be enjoyed by those, an expression of whose opinion is demanded; but it is still more necessary, if true views are to be held in regard to these unfortunates—and who will say they are not the most unfortunate of mankind—they must be founded, not upon mere abstract views of our mental constitution, but take their origin in a right understanding of those conditions affecting the laws of organisation and degeneracy, having peculiar reference to the pathology of mind.

The deaths have amounted to 22, or 7·7 per cent. upon the whole number under treatment, and 10·5 upon the average number resident, 5 of them being men and 17 women. The diversity in the mortality of the two sexes is principally due to the advanced age of the females, to the fatal result amongst them of three cases of fever, and three of phthisis, and to the admission of two patients in a state of exhaustion. The only case requiring comment was the sudden death of a woman, a melancholic, whom post mortem examination proved to labour under fatty degeneration of the heart, so extensive that the walls of the right ventricle at one point presented the thinnest possible layer of muscular substance, whilst careful microscopic investigation failed to detect a single healthy muscular fibre.

Amongst the many interesting mental manifestations observed, two are undoubtedly deserving of special attention. The one occurred in the case of a man somewhat advanced in life, labouring under a muscular degeneration, named progressive locomotor ataxy, who exhibited in a marked manner the influence of ancient superstitions in determining the nature of the delusions,



an observation frequently verified since the opening of the Asylum. This man, so irritable and violent at home, that he required to be removed from it notwithstanding his helplessness, held the belief that three old women, his neighbours, whom he regarded as witches, had formed a *corp-criadha*, and were anxiously awaiting the gradual decay of his body as the clay image wasted. He had evidence, he said, of the exact spot into which the first pin had been placed, in an inflamed spot upon the bridge of his nose. That the disease was progressing, the wasting of his limbs, and especially of the large muscle giving roundness to his left shoulder, bore ample testimony. For the last month, however, partly from the sense of protection he enjoys, and marked improvement in his general health, it is thought not improbable he may recover mentally, though from what is known of the malady from which he suffers, this may be expected to be progressive, or at best to remain stationary. To those unacquainted with the compactness of the imagination of the insane, attention may be directed, in this instance, to the compatibility of the association between the delusion and physical disease. The other patient, an abstainer, and one who often required for months to be sustained by compulsory alimentation, was permitted, when taking her food, to carry off any remnants of her supper after finishing her meal. Her room, on this account, became an attraction for one of the few cats allowed to inhabit the wards, and shortly afterwards the patient began to imitate the habits of these animals. She came out of bed on all fours, progressed in this way to her chosen seat in the ward, called from time to time like her feline associates, and mewed between every spoonful of food. This observation may seem trivial, but it is specially interesting when it becomes known that it is a condition associated with the Lycanthropia, or wolf madness, of the middle ages, which caused so much terror in the countries in which it became epidemic, and traces of which still live in many of the traditions handed down to the present time.

Table xiii. exhibits the occupation of the patients, and will show sufficiently to what extent they are employed, and it only requires, in reference to this point, to state that it has been found impossible to carry out this important department so fully as could be wished, but still a slight improvement has been ef-



fect, and several of the patients are now being trained to shoemaking and tailoring, and the experiment has been so far successful as to admit of much greater economy in the repairs than during former years. Unfortunately, from the unsatisfactory sanitary condition of the Asylum, and the conversion of the amusement hall into a dormitory, less was accomplished than could have been desired in reference to amusements. The usual annual festivals, the Queen's birthday, Hallowe'en, Christmas, and the harvest home, however, were becomingly celebrated, and two concerts, a reading, and a *conversazione*, accompanied by an exhibition of pictures previous to being hung up in the wards, were given. On two occasions also, during the summer, much pleasure was given to the inmates by the performance of the flute band of the Reformatory School, during the celebration of the out-door games. It is hoped, however, that during next season nothing will occur to prevent the farther development of a department which, when judiciously employed, is an important aid to more special treatment.

The religious services continue to be conducted by the Rev. Mr Macgregor, alternately in English and Gaelic, and there has been an increase in attendance upon them, whilst his weekly visits are always looked forward to by the patients with pleasure. Prayers continue to be read daily at eight o'clock in the morning, and the following quotation from the daily register on the last Sunday and the last day of the Asylum year, will give an idea of the numbers attending chapel:—Sunday, 12th May, 93 males, and 60 females; Friday, 17th May, 92 males, and 47 females.

I have again to offer my thanks to Fountaine Walker, Esq. of Foyers, and Dr Forbes, of the Madras Army, for continuing to forward the Illustrated London News. Besides this periodical, which affords a weekly pleasure and provides attractive pictures now decorating the walls, adding much to the home-like aspect of the various sitting-rooms, Good Words, The Leisure Hour, The People's Journal, The Golden Treasury, &c., and the Scotsman, are provided for the patients. Additional newspapers, however, especially local ones, would prove a boon, and it is certainly no exaggeration to state that the craving for the news of the day, and from the different districts from which the inmates are drawn, is, by the more intelligent patients, equal to that of the general community.



The acquisition of a photographic apparatus has led to the foundation of a series of portraits of the more interesting patients. The gallery now numbers 120 photographs, generally of the second size of plate, and are really interesting, and typical of the various forms of mental disease.

In concluding this portion of the report, I beg to lay before the District Board the report of the Commissioners in Lunacy, and the reports of the House and Visiting Committee, and I take this opportunity of thanking the District Board for the encouragement and confidence received from them during a period of great anxiety, and for their aid in promoting whatever arrangements were likely to add to the comfort and happiness of the inmates.

The apparatus in the different departments have generally continued to give satisfaction, but considerable inconvenience has been caused by the steam from the cooking boilers, whenever the covers were lifted, filling the kitchen; and, in weather when the atmosphere is dense, with mist, and a free current of air is not established around the building by a sufficient amount of wind, it even penetrates, during the preparation of the dinner, as far as the lobby leading from the principal entrance. Additional attention to the boilers has somewhat remedied this defect, but further means will have to be adopted in regard to it, as its continuance will in time injure the walls and ceilings of the kitchen. From this cause, also, the chapel was rendered disagreeable, the steam reaching it by means, probably, of the flues. To all appearance, however, by carrying out instructions suggested by the House Committee and architect, this defect has been partially remedied, though sufficient time has not elapsed to test satisfactorily the effect of the alterations.

There has been a slight increase in expenditure in the manufacture of gas, the cost per 1000 feet being 6s. 10½d. during the present year, against 6s. 10¼d. in 1866. This, however, is explained by the rise in the price of parrot coal, and because an inferior quality was used during the first two months of this year. The smallest quantity was used in July, when 665 feet were burnt on an average per day, and the largest in January, when the daily consumption amounted to 4078 feet.

During the year considerable improvements have been effected in the grounds. The new farm road, partly constructed before the opening of the Institution, has been continued up the hill a



distance of 260 yards, and a road leading off from the approach to the new piggeries constructed. Several patches of ground intersecting the arable land have been reclaimed and added to the fields, some extent of whins has been grubbed up, large numbers of boulders have been blasted and cleared away, and several land drains have been put in where required. Progress has also been made in the removal of one of the banks of earth opposite the principal entrance of the Asylum; and in order in every way to facilitate this, and the laying out of the terrace in front—two of the most important works connected with the amenity of the building—a portable railway has been procured, which is likely to prove of great service. In connection with improvements effected within the grounds, it is to be greatly regretted that the trees planted during previous years have not grown, principally, it is believed, from the unusual dryness of the season last summer, and Mr Findlay reports that nearly two-thirds have died.

The new piggeries proposed to be erected have been completed and occupied for the past four months, and seem suitable for the purpose they were intended to serve.

For assistance in many difficulties, I have again been greatly indebted to Mr Anderson. The officers have conducted their several departments satisfactorily, and it is gratifying to be able to record that notwithstanding the difficulties with which the management of the Asylum has been surrounded, from the occurrence of the epidemic already alluded to, that progress has continued to be made and new features developed, which are now adding much to the comfort of the inmates.

THOS. AITKEN.

18th May 1867.



# APPENDIX.

TABLE I.

GENERAL RESULTS OF YEAR ENDING 18TH MAY 1867.

	Males.	Females.	TOTAL.
Total number resident 18th May 1866	112	106	218
Admitted from Parishes . . . . .	27	24	51
Transferred from other Asylums . . . . .	5	3	8
Private Patients . . . . .	4	3	7
Total number under treatment . . . . .	148	136	284
Discharged Recovered . . . . . M. F. T.			
Discharged Recovered . . . . .	9	10	19
Discharged Not Improved . . . . .	1	1	2
Died . . . . .	5	17	22
Decrease in number . . . . .	15	28	43
Total number resident 18th May 1867	133	108	241
Average number resident during the year			232.5

TABLE II.

AGES OF PATIENTS.

	Males.	Females.	TOTAL.
Between 15 and 20 . . . . .	2	3	5
„ 20 and 30 . . . . .	10	7	17
„ 30 and 40 . . . . .	7	4	11
„ 40 and 50 . . . . .	7	7	14
„ 50 and 60 . . . . .	4	2	6
„ 60 and 70 . . . . .	2	5	7
„ 70 and 80 . . . . .	0	2	2
Unknown . . . . .	4	0	4
	36	30	64



TABLE III.  
SEX OF PATIENTS.

	Admitted.	Recovered.	Removed.	Died.
Males . . .	36	9	1	5
Females . . .	30	10	1	17

TABLE IV.  
CONDITION OF PATIENTS.

	Males.	Females.	TOTAL.
Married . . . . .	6	8	14
Unmarried . . . . .	29	19	48
Widowed . . . . .	1	3	4

TABLE V.  
OCCUPATION OF THOSE ADMITTED.

	Males.	Females.	TOTAL.
Carpenter . . . . .	2	0	2
Clergyman . . . . .	1	0	1
Crofters' Wives . . . . .	0	3	3
Domestic Servants . . . . .	0	17	17
Draper's Assistant . . . . .	1	0	1
Fishermen . . . . .	3	0	3
„ Wife of . . . . .	0	1	1
Gardener . . . . .	1	0	1
Gold Digger . . . . .	2	0	2
Hawker . . . . .	1	0	1
„ Wife of . . . . .	0	1	1
Labourer . . . . .	11	0	11
Lady's Maid . . . . .	0	1	1
Merchant . . . . .	1	0	1
Mill Worker . . . . .	0	1	1
Outdoor Workers . . . . .	0	2	2
Photographer . . . . .	1	0	1
Ploughman . . . . .	1	0	1
Sailor . . . . .	1	0	1
Shoemaker . . . . .	2	0	2
Shepherd . . . . .	2	0	2
Schoolmaster . . . . .	1	0	1



TABLE V.—*Continued.*

	Males.	Females.	TOTAL.
Shopboy . . . . .	2	0	2
Vagrant . . . . .	1	0	1
Wife of Tailor . . . . .	0	1	1
Of no occupation . . . . .	2	3	5
	36	30	66

TABLE VI.  
CAUSES OF DISEASE.

	Males.	Females.	TOTAL.
Birth of illegitimate child . . . . .	0	1	1
Congenital . . . . .	4	3	7
Coup-de-Soliel . . . . .	1	0	1
Death of mother . . . . .	1	0	1
Destitution . . . . .	0	2	2
Disappointment in marriage . . . . .	2	2	4
„    of legacy . . . . .	1	0	1
Epilepsy . . . . .	1	0	1
Exposure to cold . . . . .	1	0	1
Fall from mast . . . . .	1	0	1
Family annoyances . . . . .	0	3	3
Fear . . . . .	2	1	3
Fever . . . . .	2	0	2
Hereditary tendency . . . . .	2	4	6
Illness of son . . . . .	0	1	1
Injury to head . . . . .	1	0	1
Intemperance . . . . .	2	1	3
Jealousy . . . . .	0	1	1
Loss of money . . . . .	1	0	1
Masturbation . . . . .	2	0	2
Excessive study . . . . .	1	0	1
Period of puberty . . . . .	0	1	1
Puerperal . . . . .	0	1	1
Religious excitement . . . . .	2	3	5
Syphilis . . . . .	0	1	1
Unknown . . . . .	9	5	14
	36	30	66



TABLE VII.  
FORMS OF DISEASE OF PATIENTS.

	Males.	Females.	TOTAL.
Imbecility . . . . .	4	2	6
Dementia . . . . .	6	2	8
Mania . . . . .	16	16	32
„ with Epilepsy . . . . .	1	0	1
Melancholia . . . . .	4	7	11
„ Suicidal . . . . .	3	2	5
Monomania of Suspicion . . . . .	1	0	1
„ of Vanity . . . . .	0	1	1
General Paralysis . . . . .	1	0	1
	36	30	66

TABLE VIII.  
INFLUENCE OF HEREDITARY TENDENCY.

	Males.	Females.	TOTAL.
Hereditary tendency . . . . .	6	8	14
No hereditary tendency . . . . .	22	21	43
Unknown . . . . .	8	1	9
	36	30	66

TABLE IX.  
DURATION OF DISEASE.

	Males.	Females.	TOTAL.
Less than 1 Year . . . . .	20	21	41
From 1 to 2 Years . . . . .	1	1	2
„ 2 to 5 „ . . . . .	3	1	4
„ 5 to 10 „ . . . . .	2	3	5
„ 10 to 15 „ . . . . .	1	0	1
„ 15 to 20 „ . . . . .	1	0	1
„ 20 to 25 „ . . . . .	0	2	2
Congenital . . . . .	6	2	8
Unknown . . . . .	2	0	2
	36	30	66



TABLE X.  
NUMBER OF ATTACKS.

	I.	II.	III.	IV.	Un- known.
Males . . . . .	26	6	2	0	2
Females . . . . .	20	4	3	1	2

TABLE XI.  
AMOUNT OF EDUCATION OF PATIENTS.

	Males.	Females.	TOTAL.
Well educated . . . . .	7	5	12
Can read only . . . . .	2	18	20
Can read and write . . . . .	12	2	14
Cannot read or write . . . . .	15	2	17
Unknown . . . . .	0	3	3
	36	30	66

TABLE XII.  
CAUSES OF DEATH.

	Males.	Females.	TOTAL.
Bronchitis . . . . .	0	2	2
Diarrhœa . . . . .	0	2	2
Epilepsy . . . . .	1	0	1
Exhaustion . . . . .	0	4	4
Fatty degeneration of the heart . . . . .	0	1	1
General paralysis . . . . .	1	0	1
Paralysis . . . . .	1	0	1
Phthisis . . . . .	1	3	4
Pneumonia . . . . .	1	1	2
Typhoid fever . . . . .	0	3	3
Uterine Disease . . . . .	0	1	1
	5	17	22



TABLE XIII.

SHOWING EMPLOYMENT OF PATIENTS AND NUMBERS EMPLOYED,  
MAY 17, 1867.

	Males.	Females.
Assisting attendants in house work . . .	12	27
Stokers . . . . .	2	0
Storekeeper . . . . .	1	0
Messenger . . . . .	1	0
Tailors . . . . .	4	0
Shoemakers . . . . .	3	0
Carpenter . . . . .	1	0
Upholsterer . . . . .	0	0
Schoolmaster . . . . .	1	0
Gardeners . . . . .	6	0
Labourers . . . . .	32	0
Employed in kitchen . . . . .	0	5
Laundresses . . . . .	0	7
Sewing . . . . .	0	45
Knitting . . . . .	0	11
Employed at cottage preparing food for workers	0	0
Total . . . . .	63	95



TABLE XIV.

STATEMENT OF WORK DONE BY PATIENTS FROM 18TH MAY 1866 TO  
18TH MAY 1867.

MADE BY FEMALES.	REPAIRED BY FEMALES	Shoemaker's Work.
156 Aprons.	165 Aprons.	MADE.
117 Gowns.	645 Gowns.	1 Prs. Strong Boots
177 Mattresses.	2698 Shirts.	24 Prs. House Shoes
132 Pairs Stockings.	1270 Chemises.	19 Prs. Carpet Shoes
418 Pairs Socks.	3414 Socks.	REPAIRED.
377 Shirts.	1505 Stockings.	2233 Pairs Boots and
599 Flannel Shirts.	1417 Drawers.	Shoes.
38 Linen Shirts	41 Blinds.	
(strong).	35 Mattresses.	<b>Tailor's Work.</b>
238 Chemises.	1017 Sheets.	REPAIRED.
81 Bed-gowns.	117 Table-cloths.	1494 Pairs Trousers.
6 Night-gowns.	749 Bolster Cases.	971 Jackets.
232 Day-caps.	380 Petticoats.	755 Vests.
122 Night-caps.	469 Day-caps.	
20 Bonnets trimm'd	100 Night-caps.	<b>Upholsterers.</b>
159 Petticoats.	378 Bed-gowns.	MADE.
5 Cotton Drawers.	100 Pr. Socks Footed	35 Bolsters.
22 Shrouds.	68 Pairs Stockings	8 Pillows.
219 Sheets.	Footed.	
192 Bolster Cases.	910 Flannel Shirts.	<b>Out-door Labour.</b>
31 Table-cloths.	484 Flannel chemises	Average No. of Men, 32
125 Blankets.	34 Blankets.	Description of Work.
5 Quilted Blankets	92 Stays.	No. of days employed.
185 Pairs Drawers.	46 Pillow Cases.	D. H.
102 Handkerchiefs.	14 Towels.	Garden . . . 75 2
208 Towels.	21 Bed Covers.	Farm . . . 109 8
30 Pillow Cases.	92 Loose Beds.	Land improve-
49 Loose Beds.	4 Carpets.	ment . . . 22 5
5 Ticking Sheets.	3 Quilts.	Stone-blasting 30 9
5 Blinds.	18 Bonnets.	Roads & Walks 64 6
1 Box Cover.	6 Pinafores.	Excavations . 27 1
9 Window Screens	4 Linen Shirts	Miscellaneous 135 6
9 Hearth Rugs.	Breasted.	



TABLE XV.

PROVISIONS CONSUMED DURING THE YEAR ENDING 18TH MAY 1867.

ARTICLES.	QUARTERS ENDING—				TOTAL.
	Aug. 18.	Nov. 18.	Feb. 18.	May 18.	
Apples and Nuts	...	60	...	...	60 lbs.
Barley . . .	2368	2608	2844	2565	10,385 „
Bathbrick . . .	9	11	12	8	40 bricks
Beef . . .	7817	8392	10489	11251	37,949 lbs.
Beer (Table) . .	3727	4131	4857	4550	17,265 pints
Beer (Bitter) . .	175	123	200	183	681 bot.
Blacking . . .	164	75	71	130	440 cakes
Blacklead . . .	244	262	223	213	942 „
Black Sugar . . .	2	2	3	1	8 lbs.
Brandy . . .	5	4	11	8	28 bot.
Bread . . .	19823	17205	14468	16909	68,405 lbs.
Buns . . .	150	440	240	...	830 No.
Butter . . .	1033	1088	1118	1055	4,294 lbs.
Candles . . .	29	22	26	26	103 „
Cheese . . .	587	613	608	682	2,490 „
Coffee . . .	20	8	10	23	61 „
Confections . . .	3	1	2	1	7 „
Corn Flour . . .	...	28	24	28	80 „
Currants . . .	89	90	101	99	379 „
Currant Loaves . .	...	...	168	...	168 „
Flour . . .	714	517	623	720	2,574 „
Gin . . .	...	5	2	...	7 bot.
Ham . . .	18	25	26	15	84 lbs.
Ivory Black . . .	...	2	4	4	10 „
Linseed Meal . . .	14	28	14	...	56 „
Loaf Sugar . . .	24	24	24	26	98 „
Matches . . .	336	299	312	341	1,288 boxes
Meal . . .	7404	7436	7482	7614	29,936 lbs.
Milk . . .	12518	12739	13085	13557	51,899 pints
Mustard . . .	4	11	4	12	31 lbs.
Mutton . . .	400	431	674	61	1,566 „
Pease . . .	611	684	697	654	2,646 „
Pease Flour . . .	262	218	224	270	974 „
Pease (Split) . . .	357	287	306	260	1,310 „
Pipeclay . . .	266	229	261	290	1,046 cakes
Polishing Paste . .	24	28	24	20	96 pots
Porter . . .	120	245	427	344	1,136 pints
Potatoes . . .	14	44	56	36	150 bolls
Raisins . . .	...	...	17	3	20 lbs.
Salt . . .	1362	698	1279	1691	5,030 „



TABLE XV.—*Continued.*

ARTICLES.	QUARTERS ENDING—				TOTAL.
	Aug. 18.	Nov. 18.	Feb. 18.	May 18.	
Salt (Fine) .	2	4	6	7	19 cases
Snuff . .	12	12	12	9	45 lbs.
Soap (Hard) .	887	818	956	920	3,581 „
Soap (Soft) .	524	509	502	559	2,094 „
Soda . . .	427	498	523	374	1,822 „
Starch . . .	32	28	30	28	118 „
Suet . . .	319	249	280	350	1,198 „
Sugar . . .	1050	1101	1150	1115	4,416 „
Tea . . .	215	220	246	233	914 „
Tobacco . .	61	60	70	72	263 „
Tobacco Pipes .	26	30	28	31	115 doz.
Vegetables .	2213	2164	2368	2807	9,552 lbs.
Vinegar . .	1	1	1	1	4 bot.
Whisky . . .	42	53	93	81	269 „
Whiting . .	14	14	14	14	56 lbs.
Wine (Port) .	57	133	106	41	337 bot.
Wine (Sherry) .	...	7	6	...	13 „



FOURTH

ANNUAL REPORT

OF THE

WATERWORKS DISTRICT

ASTORIA

MAY 1863

INVESTIGATION

PRINTED AT THE COURIER OFFICE

1863