

the insane and by practical acquaintance with modern medical treatment of all varieties of mental disease, as well as by personal experience of asylum administration."

Copies were directed to be sent to all the Irish Members of Parliament. A resolution in similar terms, but with the necessary changes, was also directed to be sent to the Lord Lieutenant of Ireland, the Chief Secretary, the Lord Chancellor, the Inspector of Lunatics, and the Registrar in Lunacy.

After some further discussion the meeting terminated.

BANGOUR VILLAGE.⁽¹⁾

By JOHN KEAY, M.D., F.R.C.P.E., Medical Superintendent.

Bangour Village has been built to accommodate those of the insane poor of the City of Edinburgh for whom asylum care is required.

Previous to the opening of the Royal Asylum at Morningside in 1813, the only provision of a public kind for the insane of the city consisted of the City Bedlam, in addition to about a dozen cells attached to the old Royal Infirmary. In 1844—fifteen years before district asylums were built—the city authorities entered into an arrangement with the managers of the Royal Asylum, under which insane patients of the poorer class were received into that institution. The arrangement held good for sixty years, until the opening of Bangour Village for the reception of patients in 1904.

With the growth of the city the number of insane gradually increased, so that eventually the asylum authorities found their available accommodation insufficient for all those for whom admission was desired.

The inadequacy of the asylum accommodation led first of all to great activity in the boarding out of insane patients in private dwellings, in which movement Edinburgh has always taken a leading place. Additional relief was found by establishing wards for insane patients of the chronic class in connection with one of the city poorhouses; and, finally, taking advantage of spare accommodation wherever it could be found, the Royal Asylum authorities boarded batches of Edinburgh patients in various district asylums throughout the country.

The relief thus obtained, welcome and valuable though it was, did not meet the case, and in 1898 Edinburgh was constituted a Lunacy District, and had to take upon itself the burden of providing an asylum for its own patients. The result is Bangour Village, where we meet to-day.

Having purchased, for the sum of £15,000, the estate of Bangour, extending to 960 acres, and having secured the services of the late Sir John Sibbald as their medical adviser, the question of the kind, or type, of asylum to be built had at once to be decided by the newly constituted District Board of Lunacy. Sir John Sibbald had no hesitation in advocating the adoption of the "segregate" or "village" type, expressing his views in an interesting and instructive little pamphlet *On the Plans of Modern Asylums for the Insane Poor*, and a committee of the District Board having visited many important asylums in this country, in Germany, and in France, strongly endorsed his recommendation.

The asylum of Alt-Scherbitz, near Leipsic, in particular, presented features in construction and in general arrangement which appealed strongly to the committee and to Sir John Sibbald, and our architect, Mr. Blanc, has had many of these features in his mind when evolving the plans of this institution.

Like Alt-Scherbitz, our village is, as you will notice on referring to the plan, divided into two great sections—the Medical and the Industrial—the former corresponding to the Alt-Scherbitz "Central Establishment," and the latter to what is known at Alt-Scherbitz as "The Colony." In our "Medical Section," just as in the Alt-Scherbitz "Central Establishment," are accommodated all patients who for any cause, bodily or mental, require special medical treatment or special supervision. In our "Industrial" Section, corresponding to the Alt-Scherbitz "Colony," are housed those who do not require more than ordinary attention and supervision. They are for the most part capable of being usefully employed, and they

live in homes of a simple character, devoid of any special asylum arrangements, and most of them with open doors.

As will be seen on referring to the ordnance map, the buildings constituting the village are placed near the lower border of the estate, on ground sloping to the south, and near to the Edinburgh and Glasgow road. There are neither boundary walls nor entrance gates; in fact, the boundary fences are those that existed before the grounds became those of an asylum, and not only is the estate bounded on two sides by public roads, but such a road passes through the farm-steading, and close to houses occupied by patients.

Taking the Medical Section first, the buildings therein are the following :

(1) The administration house, containing the usual offices, board room, and dispensary, and quarters for three assistant-physicians.

(2) The admission, or reception wards, for male and for female patients, built on either side of the administration house, and attached thereto by corridors. These wards accommodate forty-six patients of each sex.

(3) The closed villas, for patients requiring continuous or special supervision on account of their mental symptoms. These villas, which are of two sizes, accommodating thirty-two and forty patients, are placed in convenient proximity to the administration house. There are at the present time four closed villas, accommodating seventy-two patients of each sex.

(4) The hospital, of 90 beds, for patients and staff requiring medical care and nursing on account of bodily illness. This building is equipped with a laboratory for clinical work, an electrical department, an operating room, and a lecture room.

(5) The isolation hospital of 20 beds, not yet completed, has as its primary object the separation from their fellows of patients suffering from infective forms of tuberculosis.

(6) The nurses' home, with 88 bedrooms and the usual public rooms, provides accommodation for the nurses employed in the Medical Section, each nurse having her separate bedroom and the use of the public rooms. Some of the higher female officials (matron, assistant matrons, and house secretary), have their quarters in the home. It is staffed by a housekeeper and six maids.

(7) The mortuary, situated at the eastern border of the grounds, has a separate access from the main public road, so that funerals may not pass within sight of the houses occupied by patients.

The buildings of the Medical Section provide accommodation at present for 346 patients, a number which can be increased whenever necessary by simply building more closed villas, or, perhaps preferably, by building an infirmary for senile cases, which tend to accumulate in the hospital. The roads, drains, water-pipes and electric cables have been so laid down that such additional buildings can be erected at any time with the minimum of inconvenience and cost.

Westwards from the Medical Section we come to buildings occupying a somewhat central position, the first of these being—

(1) The recreation hall, in which we have assembled, and which is used in the meantime not only for secular entertainments but for Divine service. We hope, however, some day to have the village church. The hall has accommodation for 700, and cost £7,263, which I am sure you will agree is a moderate figure.

(2) The power station and workshops are equipped with the usual plant and machinery, and adjoining them there is the private railway station.

(3) The bakery.

(4) The kitchen and stores.

(5) The laundry.

In the western portion of the grounds are the buildings comprising the Industrial Section, and of these there are—

(1) Four homes for women, occupying the lower, or southern portion of the grounds, each of them accommodating fifty patients and the necessary staff of nurses. One of these is known as the "laundry home," being situated conveniently near that building, and in it reside the patients employed in the laundry and the central kitchen, as well as the laundry staff. In the construction and arrangements of these homes features suggestive of an asylum have been as far as possible avoided. The rooms are furnished like those of an ordinary house; the doors open with ordinary handles; there are no single rooms.

(2) Five homes for men, standing on the higher and more northerly ground of this section, each of them with accommodation for fifty patients and the necessary staff. The internal arrangements are similar to those in the women's homes.

(3) The farm home, being the old farm house of Bangour, in which are accommodated twelve patients employed about the steading.

The buildings of the Industrial Section thus provide 462 beds for patients, a number which can in the future be increased to the extent considered necessary by adding homes for men and for women.

(4) Finally, there should be mentioned Middleton Hall, situated over two miles away, close to the village of Uphall—a mansion house held on lease by the District Board and providing accommodation for sixty-five patients—fifty women and fifteen men, with the requisite staff.

The buildings, therefore, constituting the asylum provide at present accommodation for 873 patients, made up of 346 in the Medical Section, 462 in the Industrial Section, and 65 at Middleton Hall. In considering the question of cost, it is necessary to keep in view the fact that the admission wards and the hospital, as well as the nurses' home, central kitchen, stores, laundry, power station, recreation hall, and other administrative buildings have been constructed of dimensions calculated on the requirements of an asylum of 1,000 or 1,200 patients, and that in the case of the farm, the water supply, and the sewage disposal works the same generous margin of reserve has been allowed. Consequently, future additions to the accommodation for patients will be made at comparatively small cost.

Edinburgh, with its population of 355,000, has 1,200 rate-supported insane. Seven hundred and forty-five of these are at present resident at Bangour; over 300, or 26 *per cent.*, are boarded out in private dwellings; 105 remain in the Royal Edinburgh Asylum, under an agreement between the managers of that institution and the Parish Council, which expires in 1914; and the remainder are in other asylums or in homes for imbeciles.

There are certain particulars concerning the administration of the Institution which may be of interest to visitors.

(1) *The cost of maintenance.*—The rate of board at present charged for patients belonging to the district—that is, the city of Edinburgh—is £27 per annum. This covers the cost of food, clothing, salaries and wages, washing, etc. It does not include the cost of buildings or their upkeep. The average rate for the district asylums of Scotland is something over £26. Our rate would not be higher than the average for Scotland were it not that our accommodation is not fully occupied. With 745 patients resident there are 128 vacant beds.

(2) *Proportion of nursing staff to patients.*—In the Medical Section the proportion of nurses or attendants to patients is—for day duty 1 to 8, and for night duty 1 to 22. In the Industrial Section the proportions are—1 to 14 for day duty, and 1 to 154 for night duty. Over all the proportions are—for day duty 1 to 11, for night duty 1 to 46.

(3) *The cooking and distribution of food.*—The food is cooked in the central kitchen, and is transported to the various houses in metal boxes, which fit into the compartments of a specially designed wagon drawn by a pair of horses. There is no difficulty in having the food served hot. It is ensured that it leaves the kitchen in a piping hot condition, and it arrives at its destination in the most remote building in fifteen minutes without appreciable loss of heat. The distribution of food costs £150 per annum.

(4) *Water supply.*—Filtered water is supplied by gravitation from a reservoir constructed on the estate at an elevation of 700 feet above sea-level, giving a 200-foot head of water for fire extinguishing purposes. The reservoir has a capacity of 16,000,000 gallons, or about four months' supply. The water-works cost £24,000.

(5) The sewage works are on the bacterial system, with septic tanks and a double set of clinker beds. The works are capable of dealing with 60,000 gallons per day, or the sewage of a population of 1,500. Cost, including drains, £9,500.

(6) Heating is by low pressure hot water, each house having two furnaces with boilers in a basement chamber, one for the supply of hot water for domestic purposes, and the other for that required for heating the rooms. These furnaces burn coke, so that smoke may be avoided.

(7) Ventilation is by the natural method—open doors and windows, assisted by air inlets placed behind the radiators.

COST AS AT MAY 15TH, 1910.

	£	s.	d.	£	s.	d.
Land	15,193	0	0			
Water	23,934	17	4			
Sewage disposal works and drains	9,471	6	0			
Roads and grounds	18,239	18	1			
Railway	38,240	16	6			
Power station and workshops	8,916	14	3			
Steam and electric plant, cables, etc.	16,805	15	5			
Fees and outlays of architects, measurers, and engineers; salaries of clerks of works; schedules and record plans, etc.	28,367	0	0			
				159,169	7	7
Administration house and admission wards	25,689	4	6			
Closed villas	22,088	10	2			
Hospital	14,759	2	2			
Isolation hospital	1,470	5	1			
Mortuary	1,197	3	9			
Nurses' home	12,006	12	5			
Recreation hall	7,263	8	3			
Bakery	2,433	17	9			
Kitchen and stores	9,652	9	10			
Laundry	7,652	16	9			
Industrial homes for women	21,753	8	9			
Industrial homes for men	19,127	7	5			
Farm buildings (alterations and additions) and greenhouse	7,143	14	0			
Houses for staff	6,691	17	5			
Furnishings	17,372	4	6			
Sundries (grates, mantelpieces, blinds, locks, electric clocks, fire appliances)	2,796	8	0			
				179,098	10	9
Total	£338,267	18	4			

ACCOMMODATION FOR PATIENTS.

	Male.	Female.	Total.
Admission wards	46	46	92
Hospital	45	45	90
Isolation hospital	10	10	20
Closed villas	72	72	144
Industrial homes	250	200	450
Farm house*	12	—	12
Middleton hall†	15	50	65
	450	423	873

* Cost of altering, painting and furnishing only included above.

† Held on lease. No expenditure connected therewith included above.

(1) This description was communicated to the members of the Medico-Psychological Association, who visited Bangour Village on July 23rd, 1910.