

Reports on space needed for each soldier in barracks, with statistics of numbers of soldiers in each barracks in the Bombay Presidency, 1853, notes on the sanatorium of Mahableshwur, and reports and plans of barracks and hospitals in the Bombay Presidency, mainly those in Hyderabad and Poona

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Mahabharwar 16 April 1852

Sir.

1. In reply to your communication of the 13th Inst. No 33, I have the honor to state, for the information of the Commander of the Forces, that, in my opinion, each Soldier in Barracks in this Country ought to have a surface space of five feet by ten for his bedstead which would give him a square space of fifty feet, that, in most of the Barracks I have seen, would be increased to 55, or 60 feet - according to the width of the building.

2. The cubic space for men in barracks should not, I quite agree with Sir Charles Napier, be less than 1000 cubic feet; because, in this country during the hot months, they are confined to them during the greater part of the day, as well as during the whole of the night. But this is a point that has not ^{been} ~~not~~ ^{admitted} of question as in all the Barracks I have seen, from the nature of their construction, the men enjoy even a greater space than that at present -

3. Each man I think ought to have a separate space for his bedstead, in place of the beds being arranged in pairs as, I notice, is a common custom in the barracks here, but which is by no means a good, or desirable one for many reasons -

Leut. W. Holland
J. Martin Gmbl.

4. The average daily sick in H.M.'s Regiments for the last five and twenty years has been about $8\frac{1}{2}$ per cent so that that would be a fair deduction to make for men in Hospital

5. In Hospital the surface space for each cot or bedstead ought not to be less than six feet by ten which would give a square space of 60 feet that would be increased to 72 or 73 feet according to the width of the Ward. and the cubic space for each patient should not be under 1200 feet -

6. I have already stated that the average daily sick in H.M.'s Regiments serving in this Presidency has amounted to $8\frac{1}{2}$ per cent; the hospital accommodation for a battalion of Europeans ought not, therefore, I think, to be calculated at 60

1072.

than ten per cent.

7. In this communication
I have confined myself strictly
to the points submitted to me in
your letter of the 13th Inst.; but
during my recent tour of inspection
of the Barracks and Hospitals occupied
by H. M.'s Regiments in this Presidency
certain things connected with the
health and comfort of the men
struck me that I shall take the
liberty at some future period
of submitting to you for the con-
sideration of the Commander of
the Forces

I have the honor to be

Y^r
Your most obedient
Humble Servant

John H. M. D.
S^r Inspector Genl
H. M.'s Hospitals

The quantity of Carbonic acid Gas formed in 24 hours is 28.736 cubic inches, or 14985 grains, and the quantity of Carbon removed from the blood into the air once passed thro' the Lungs contains

about 5 per cent of Carbonic acid Gas, and when it contains 10 per cent it becomes insupportable.

The expired air loses about $1/24$ of its volume in passing thro' the Lungs - The greatest quantity of Carbon is given off between 11 a.m. & 1 P.M. The least between 8 P.M. & 3 a.m. It is increased by exercise & depletion, and lessened by fasting and rest. It is diminished also by depressing passions - fatigue & spirituous liquors - Tea, and vegetable food, and by the long continued use of mercury. It is given off in greatest quantity when the Barometer is low, and is more abundant in low than in high temperatures.

Besides Carbonic acid Gas about 8000 grains or more than one pound avoirdupois weight is exhaled from the Lungs -

about $6\frac{3}{4}$ oz of water and $\frac{1}{4}$ of Carbon are given off by the skin in 24 hours. This is increased in a dry warm atmosphere - by diminished pressure & motion of the air - So diminished by stillness of the air moisture and increased atmospheric pressure.

No. 3

ERR 1/2

Dep^y Inspector General of Hosp^{ls}
Office, Mahabeshwara
18th April 1852

Sir -

With reference to your letter of the
14th October 1851, No 769. addressed to
Mr Thom, acting D^y Inspector General of the
Magist^r's Hospitals, I have the honor to
acknow, for the information of the Com-
mander of the Forces, a return of the
Comparative Mortality between single,
and married men in the Regiments
named in the margin during the period
they had respectively served in the
Residency where the documents called
for by Mr Thom were furnished.

10 Hapars
8th Post
64th do
78th do
83rd do
86th do

I annex also a return of the mor-
tality amongst the women and children
of those corps for the same period
abstracted with that of the married and
single men ^{in the same manner as before} and a statement of
~~the stations at which they had been~~
~~quartered since their arrival in the~~
~~Commande~~. These are the only Regiments
in which the mortality amongst the
women and children can be traced
by stations in the records of this Office;
but taking the aggregate amount of
Annual Sickness and Mortality
amongst

Lieut. Col Holland
Inspector General
Mahabeshwara

from the whole Command.
thence, the Records reach as far back
as 1826: and during the period
between 1826, and 1851, a space of
25 years, the annual average
mortality amongst the women has
been 5.76 per cent: and amongst
the children 7.99 per cent. Whilst
amongst ~~the men~~ ^{that of the} for the same period,
I find, ~~it~~ has been 5.84 per cent

I have the honor to be

Yr
Your most obedient
Humble Servant
John Hall Esq.
D. Inspector General
H.M.'s Hospitals.

Table showing the Comparative Mortality among Married and Unmarried Soldiers, Women and Children of the undermentioned Corps for the period mentioned opposite to each.

Corps	Post Station	Period embraced		Mortality Males						Mortality Females						Mortality Children					
		From	To	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000	Deaths per 1000
10 th Hussars	Warke	8 th Sept 1846	15 th Oct 1846	82	11	13.41	2.61	382	76	13.06	2.6	82	12	14.63	2.92	99	62	62.13	12.48		
8 th Regt	Leicester	1 st August 1846	31 st Oct 1846	111	16	14.41	2.7	933	113	12.11	2.35	111	30	7.07	5.24	152	75	49.22	9.53		
64 th	"	1 st May 1847	31 st May 1847	117	6	5.13	1.73	927	110	11.07	4.9	117	20	23.73	9.86	151	80	58.67	24.24		
78 th	"	1 st Aug 1847	31 st Oct 1847	94	94	100.0	10.64	870	777	91.29	10.14	94	85	90.04	10.03	104	67	79.76	8.86		
88 th	"	8 th May 1847	31 st Oct 1847	114	10	15.79	6.14	971	114	12.97	5.23	114	24	21.05	2.6	152	55	36.10	14.0		
86 th	"	1 st Aug 1847	31 st Oct 1847	103	87	84.47	8.74	935	602	64.39	7.02	103	87	84.47	9.22	242	231	95.49	10.42		
Total		6 th		621	232	37.36	4.03	5211	1222	36.93.0	6.21	266	4203	4.67	0.79	570	6576	7.18			

My dear Dr. Hall

One of the main
objects in calling for the
Editorial you have lately
sent in was to strengthen
a recommendation to God:
for the improvement
of married & single lives
by showing that the
mortality among married

Men and women living
in tents and greater than
that of single men in
barracks.

The only chance
we have of carrying out
this improvement is
by doing it gradually,
and as data is now
to that station I should
wish to begin with it. Can
you therefore please
give Edward help here.

to: Statement of the
Average assumed per
centage of deaths on
Strength at Dates of
Unmarried Soldiers
Married Do
Women.
Children.

Showing the number of
years over which the
Average extends.

Now, I am giving
you much trouble, but
the object must be try

excode.

Guantanamo

W. H. Lawrence

22 April 1852

The Palatines for the married men at
Lessa are 97 paces to the left of the barracks,
and built in four parallel lines with
streets 35 paces wide between them.

In each line are eighteen Endalls,
or 72 in all. The Endalls are 24 ft. 9 long
12 feet 10 broad, and divided into two rooms
12 feet 10 by 10 feet 4 each. The walls are
of brick one foot thick - floors of clay, and roofs
covered with single tiles. They have each
two doors and three windows - at the
entrance of each room is a cooking
berandah - and one family occupies
every room - or 144 married men in the
barracks.

	Desa	men	and	Percent	Women and	Percent	Child 2	Percent
8 Regt Dec 50 Oct 51 -	983	-12	-1.22	103	-5	-4.74	159.15	9.43
86 Regt Dec 1847	3316	-96	-2.89	234	-14	-5.98	161.60	0.90
Dec 1850				337	-19	-5.63	820	75
Total	4299	-108	-2.51			1.40		2.28
			0.62					

Proceedings of a Committee held at the request of the Officer Commanding Hyderabad vide letter No 1229 dated 17th October 1852 with the view of examining the land immediately outside the Camp limits and reporting as to what distance from such limits Cultivation ought to be forbidden as to prevent any chance of the health of the troops being affected by its immediate proximity.

President

Captain A. Fenning Collector

Asst. Surgeon Carey

1st B. Co. Regt.

Members

Asst. Surgeon Davies

1st Beloch Regt.

in charge of Civil duties.

The Committee assembled and proceeded to examine the lands to the northward and westward of the present Camp limits.

After carefully noticing the nature and extent of the Cultivation in the neighbourhood of the limits and the mode by which it is irrigated they are of opinion that if from the spur of the range of hills to the north on which stands the tomb of Sholau Shah Kuloah a line be extended straight for $\frac{1}{2}$ a mile towards the village of Chang and carried in a circle at that distance round the base of the hills to the westward of the barracks whenever Camp limits

limits extend and that no cultivation whatever be permitted within such prescribed limits that the desired object will be effected.

The land to the W. West of the barracks is at present nearly all in Camp limits which extend at an angle from the new burial ground to the Government Gardens on the banks of the river, to that land the Committee have not extended their enquiries.

The Committee observe at the base of the hills to the N.W. and E. of the Artillery that this season a considerable quantity of Cultivation has taken place from the lands having been flooded by the Wadoo Mah which indeed combined with rain water formed a swamp at the foot of the hills - Though the Committee do not consider the unhealthiness of the Troops to have proceeded from this cause, but from general malaria still they are of opinion that this swamp should if possible be prevented re-occurring whilst the cultivation before noticed is it comes within the prescribed limits

Report of a mixed
Committee on the Hydrated
Cantonment. Det. 24 Nov
1852.

'Notes on Sanitarium of Mahabaleshwar...'

Notes on the Sanitarium of Mahabeshwar in the
Western Ghats of India. Taken from Mr Murray's
Report of October 1836.

Derivation
of
name

The term Mahabeshwar is derived from Maha-
shul and Beshwar - "the God of Great Power", probably
from its proximity to the source of the Narmada River
which rises at the native village of Mahabeshwar about
three miles from the Sanitarium, which is called "Mahabesh-
war" in honor of Sir John Malcolm the founder of the
Station.

Position
Elevation
and distance
from Poona
Satara &
Bombay

Mahabeshwar is a portion of table land about five miles
by Saneletem in the Western Ghats - distant twenty five
miles due East from the Sea, and 60 S by E from
Bombay. Its elevation above the level of the Sea to the Sani-
tarium is 4570 feet, and to the highest point of the ridge
over it 4700 feet. It is situated in $17^{\circ} 56'$ north latitude,
and in $73^{\circ} 30'$ East longitude, and its position is favorable
to health as it is open to the Sea breezes on the Southward
and Westward, and is protected from the cold land
winds on the Northward and Eastward. It is elevated
4000 feet above the Concan, the district interposed between
the hills and the Sea, and 2000 feet above the level
of the Deccan to the Eastward - It is distant 70 miles
from the Cantonment of Poona, and 30 from that
of Satara.

Soil

Soil. The soil consists of red earth from the disintegra-
tion of the ferruginous clay stone, laterite, intermixed in
the lower levels with the debris of trap rock, and decayed
vegetable matter.

Water

Water. The supply of water is plentiful at all seasons
of the year, and the water is of good quality.

Climate. The climate is divided into the cold, hot, and
rainy seasons - The cold season embraces October, November,
December, January and February; the hot season includes
March, April & May; and the rainy season, July, August
and September.

The mean temperature of the cold season is $64 - 70^{\circ}$
- of the hot season - - - - $72\frac{1}{2} - 79^{\circ}$
- of the rainy - - - - $64\frac{1}{2} - 66\frac{1}{4}$

Average fall of rain per annum for eight years 240 inches number
of days on which rain fell 184.

The lines of grove are decorated with
trees so regularly placed that it appears as if they had
been planted for the purpose of affording shade for the
houses - These consist principally of the
Calyptranthes corymbifolia (Jamboul) a common
tree all over the table land -

vegetable
productions

Mamecydon paniculata (Arjun) a beautiful tree
with small polished dark green leaves, &
purple flowers clustering round its naked
branches -

Persia a species of *Tetranthera*, which flowers in November
and bears an acorn looking berry half
enclosed in the calyx -

Olea dioica (Par Sam)

Terminalia chebula (Kasala)

Symplocos racemosa - an erect tree with large
leaves of a thick firm texture, and
almond scented flowers -

Ficus glomerata (Comber) or Water tree of the natives
Of the rarer trees & shrubs the
following may be enumerated -

Nagasa triphylla - hitherto not noticed by botanists
as a native of the Peninsula

Albizia floribunda.

Eriodendron Hookerianum.

Agave acuminata. a Salis perhaps the *leaves* =
perma of Roxburgh. a species of

Elaeagnus - *Urtica pulcherrima* : *Rubus*

Rugosa : and *Cypripedium*

Antiptera tomentosa (Acia)

Sanicula (Keenjora) - a species of

Conocarpus (Daura) - The mango tree, &
some species of

Bignonia, and *Bauhinia*, and the

Bridelia montana (Asana)

The copses which in some parts

are

are very thick consist of the
Gardenia montana (Shela) Its pale yellow flowers
come out in April, and like most of
the family possess considerable fragrance.
The fruit resembles a Crab apple
and hangs on the bushes until the
flowering time of the plant the succeed-
ing year.

Bacobotrys Indica (Atkee)
Solanum Giganteum (Chumma)
Elaeagnus Conferta (Angawl)
Colubrookia ternifolia (Bhamree)
Alacourtia Sepiaria (Tamboot)
Callicarpa lanata (Eidur)
Pavetta Indica (Saput)
Scutia Indica (Chintee)
Ziziphus rugosa (Toosun)
Linonia monophylla: a species of
Celastrus (Lotul), a shrub called
Kala Goora:

Karnak commonly used in thatched buildings -
Bradleya - called Bhome by the natives: &
Cypris (Lotul) -

If Climbing Plants may be noticed the
Shrub figured by Sherde in the *Artus Indolentius*
under the name of Pa-Balli, but
which does not appear to have been
noticed by any systematic writer.
It flowers in December & is common.

Embelia Robusta (Karkunie)
Sorbus latifolium (Kosur) and
Aoya viridiflora.

The only truly ornamental shrubs
are the
Gnida eriocephala (Pameta) and the
Dingala, a species of *Robutaria*,

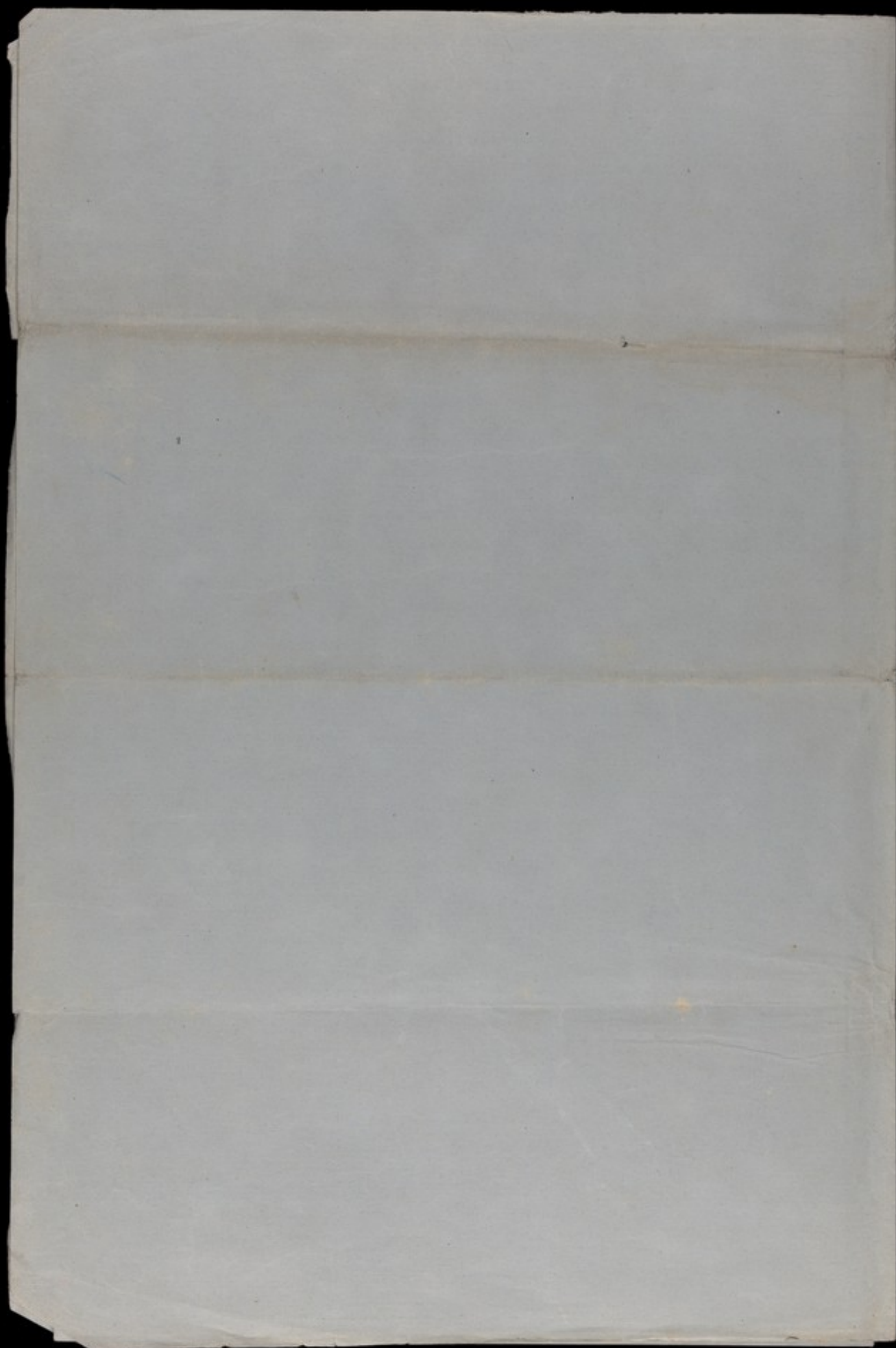
Both are very common and add greatly to the beauty of the landscape when in flower, the latter particularly, covered with its abundant light yellow blossoms presents at a distance a resemblance to the "long yellow broom" - a shrubby species of *Indigofera*, called *Needa*, also deserves to be put in this class, and the *Clematis Gouriana*, & *Rata*.

Herbs are common the *Pteris aquilina* is met with in profusion. A very beautiful species of *Osmunda* is also met with in the vale of the Lena.

A number of variegated Annuals grow up during the greater part of the year. Of these a species of *Curcuma*, probably the *montana* of Roxburgh appears in great abundance every where after the rains. From its roots an excellent description of *Arrowroot* is prepared. The beautiful *Amaryllis insignis*, *Santa Lily*, a species of *Stem* - The *Curatigo brevifolia* - *Exacum bicolor* - *Bladder variegata*, a species of *Phlox*, and a plant with yellow flowers resembling a *Conyza* are also common -

Parasitic plants are numerous & some of them of great beauty - and the limbs and branches of the trees are covered with a variety of Lichens & Musci - Amongst the Orchidaceae are found two or three species of *Loranthus* - the *Vicium Wrightianum* & *Conopsea*, and *Cuscuta Lepidota*

The climate of Malabar is favorable to children, and to general debility from climate or disease without organic change - but in Rheumatic Complaints, particularly those of a Syphilitic, or Mercureal Origin, Syphilis - and Structural Change of the Liver - Spleen or Lungs it is rather detrimental than otherwise - The scenery however is fine, the land good & judiciously laid out for exercise & pleasure, and the place affords many advantages to the residents of the plains as a retreat during the hot season -



References.

1. Old Protestant Burying ground
2. Catholic Chapel
3. Catholic Burying ground
4. New Burying ground
5. Wash houses of the different companies
6. Head House
7. Straw House
8. Cook Houses of the different companies
9. Privies

Sketches of very old portions of fort and dirt, stretching from 200 yards of the new barracks to about 2 miles - the worst portion discovered was 200 yards from the South wall of the New Burying ground extending to a great distance - this wall of a recent date and brought from the Bazar and Cantonments

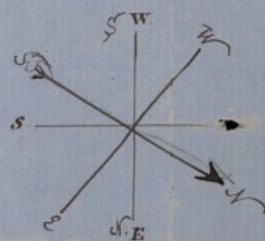
When the sickness first commenced 100 Company suffered most - after a period of 25 days 100 Company's particularly and a large number of 100 Company were admitted.

The red ink figures show the position of the 100 Company and the 100 Company that died between the 15th Sept & 31st Dec 1852.

Ground Plan of the Barracks H.M. 85th Regiment.

Barrackes

Scinde.



Barracks at Deesa. The Barracks at Deesa consist of twelve Pavilions -
Eight measuring ^{each} 177 feet in length 24 in width 15 in height to the wall
plate, and to the ridge pole - has six doors 10 ft by 4, and 24 windows
8 ft by 4 with a verandah 9 feet wide all round.

Two measure each 204 by 24 - 15.6 to the wall plate & 1 ft to the ridge pole
has eight doors 7 ft by 3 ft 6 and 28 windows 5 ft by 3.

Two measure each 124 ft by 24, 13 to the wall plate & to the ridge pole
has 6 doors and 22 windows of the same dimensions as mentioned
above - The whole of the Pavilions are capable of accom-
modating men allowing superficial, cubic feet for each man

The Hospital at Deesa consists of four wards with a verandah nine feet wide
all round the building that fronts the S.E. enclosed, and the remainder
open. Four large wards measure each 55 ft in length 25 in width 15 in
height to the wall plate & to the ridge pole have four doors 8 ft by 4 & 8
windows 8 ft by 3 and are capable of accommodating 8 patients each
allowing superficial & cubic feet for each patient - 72

Two small wards measure each 25 feet by 24 have two windows
and three doors and are capable of accommodating nine patients each
allowing superficial and cubic feet for each patient 18

One ward measuring 49 ft by 12 with two doors & 8 windows also
capable of accommodating 10 patients allowing superficial & cubic feet each - 10.

Mount Ash Sanitarium Barracks. Situated at an elevation of
4120 feet above the level of the sea consists of two buildings each 100 feet
long 21 broad - 14 high to the wall plate and 24 to the ridge pole with a verandah
8 ft 10 all round. 8 feet square of which is enclosed at the four corners for
the accommodation of non commissioned officers. Each building has 4
doors and 18 windows, and the two were intended originally for the
accommodation of 100 men but the number has been reduced to 80
allowing 522 superficial & 919 cubic space for each man.

The Barracks have been injudiciously built in a close confined
valley which deprives their inmates of the benefit of both breeze &
scenery.

Hospital at Mount Ash consists of two Pavilions having one ward
in each measuring 70 by 22. & 13-4 in height and capable of containing
20 patients (40 in all) allowing 77 superficial and 1026 cubic feet for each

There are 4 doors and 12 windows in each Pavilion each window measuring
5 ft by 3, and raised 3 ft from the floor - A verandah 8 ft 9 runs along one side
and one end of each Pavilion - at the other end of each is a room 19 ft by 8 ft 5.
The floors are raised two feet above the ground.

Surakarta Barracks - Permanent, consist of two lines of Buildings containing nine buildings - Each building contains one large room measuring 15.2 ft in length 29.10 in breadth 10 in height & the side plate & 17.2 to the edge pole - and 8 small ones four at each end 10 ft 3 square - There are five doors and 20 windows in each large room, and ventilators in the shape of chimneys from the roof - a verandah 10 ft 7 wide raised 8 inches from the platform runs along each side - Each large room is calculated for the accommodation 70 men & small rooms 12 in all 82 - 738 for the nine buildings allowing 65 superficial and 763 cubic feet for each man -

The Hospital attached to these Barracks consists of three detached buildings at the convenient distance of 50 paces from each other across an open parade -

The main Building contains one large ward on each side of the central passage measuring 72 by 29 - ^{10 feet to side plate & 22.2 to edge pole} capable of accommodating 30 patients each (60), and two small wards measuring 29-9 by 18 ft height the same as the large ward, capable of accommodating 7 patients each (14) allowing 71.5 superficial and 957 cubic feet for patients -

The two detached buildings, one of which is occupied as a female Hospital, contain each one ward measuring 39 by 29 - ^{10 ft to side plate & 22.2 to edge pole} and capable of accommodating 38 patients (76) allowing 69 superficial & 882 cubic feet for each - A verandah 10 ft 10 wide raised two feet from the ground surrounds all these buildings - The buildings have three doors & 8 windows on each side the windows measuring 4 ft 6 by 3 ft and raised 2 ft 7 above the floor -

In addition to the above Barracks there is accommodation for a Regiment in temporary buildings, and some Barracks for the accommodation of another European Regiment are in course of erection -

The temporary buildings are ten in number each measuring 26.4 feet by 24 - 14.5 to side plate & 15.5 to edge pole - has 22 doors and 18 windows, and is surrounded by a gallery 10 feet wide -

The two front Buildings are occupied as an Hospital and are capable of accommodating 150 patients allowing 69 superficial and 882 C feet for each -

The new permanent Barracks at Sumner are built of stone and covered with tiles - and consist of ten pavilions - six in the front on S.W. line, and four, with a Plunge Bath, ^{and grand house} ~~stoppage~~ ^{and grand house} in the centre of the line, in the rear, on N.E. line. There is an ^{and grand house} ~~stoppage~~ ^{and grand house} Canteen and an Armourers Shop - in front of all.

Each pavilion measures 27 1/2 feet in length, 24 in breadth, 20 to the wall plate and 25 to the roof tree, and is divided into one large room measuring 25 1/2 by 24, calculated for the accommodation of 100 men, and 4 small rooms, two at each end, measuring 20 feet by 12 for non-commissioned officers, and is surrounded by an open verandah 12 feet wide raised two feet from the ground.

The large room has ~~two~~ ^{two} doors on each side, and one at each end, each door measuring 8 ft by 4 feet opening in two leaves, with a fast square at the upper part of each panel glazed. There is also a glazed fanlight 1 ft 5 by 4 ft over each door which opens with a cord & pulley. And a louvered ventilator between the doorway and the wall plate measuring 4 ft by 1 ft 5. In addition to these there are six louvered ventilators in the roof on each side measuring 11 feet by 6. Between each two cots there is a rack for the men's arms - and a rack with pegs for their belts and clothes &c; and parallel to the feet of their cots at a height of 7 ft 2 runs a shelf of iron rods on each side 1 ft 8 wide suspended by iron rods from the cross beams of the roof for their knapsacks and other articles that require to be kept out of the way.

The end rooms, destined for the accommodation of the non-commissioned officers measure 20 ft by twelve. have a door entrance from the centre passage between them, 8 ft by 4, with a fan light 1 ft 5 by 4 ft over it and a partition, 1 foot square, at the upper part of each panel glazed; and one of exit into the open verandah of the same dimensions and construction. There are three windows measuring 5 ft 6 by 4 ft 2 1/2 from the floor, glazed and opening the whole length with a fan light over them 1 ft 5 by 4 ft opening on a centre pinch by a cord & pulley.

To each pavilion there is a cook house - a wash house, and twelve privies, situated four in the rear of each end of the building. The cook house & wash house are the former 38 paces, & the latter 3 feet in rear of the centre of the building. The kitchen has a range running its whole length with a chimney at each end, which is connected to a central flue. The wash house has a similar range, and the open water is made to dribble into a perforated pipe into the privies at its length.

The Hospital covers a main building 27 1/2 feet in length, 24 in breadth, 20 in height to the wall plate & 25 to the roof tree divided into three large wards and four small ones at the end of the building, it is surrounded by an open verandah 12 feet wide. The whole is built of stone covered with tiles, paved and raised from the ground 2 feet 8. Two of the large wards have 8 doors on each side opening into the verandah, and the centre one has 9. There are internal doors of communication between the wards - it has to be made thro' the open verandah, which is divided by walled partitions also, corresponding with the internal divisions but there are doors of communication thro' them - 100 feet to the S.E. of the main hospital is a building on a smaller scale but of the same plan destined for the female hospital - and to the N.E. are three rooms connected by a passage which are intended for stores and surgery. By the post the Superintendent

Engineer has this day, 20 Jan^y, 53, received an order to enlarge the Hospital, and he intends to do so by adding a detached wing to the north end of the main building resembling the female Hospital which will give the whole a uniform and finished appearance. It was proposed by the Doctor to add an upstairs room to the centre of the main building, but the works have been too far completed to admit of that being done now. The delay in giving this sanction for enlargement which has been urged ever since the Hospital was projected, will be attended with inconvenience, as the Sits of the Lieutenants & Subordinate Medical Officers quarters, all of which have been commenced, will require the alteration.

Plan of Bldg at Lancaster
by Captain Rice Esq Engineer
64 ft by 179 feet long 33 ft wide 8 ft 9 in high
5th Hospital. 2nd floor 69 ft x 30 ft x 9 ft 3/4
3d — 2nd floor 89 ft x 30 ft x 9 ft 3/4
2d — 2nd floor 18 ft x 30 ft x 9 ft 3/4
New Barracks 276 ft x 24 ft x 20

New Barracks Bldg
Lower Story. 110 ft x 24 ft x 16
Upper St. 138 ft x 24 ft x 15
Hospital — 76 - 24 - 25

The 84 Bldg Hospital have open
berndaks, all round, & large
rooms at the ends.

New Barracks have the same

Upper Story Bldg have berndaks
at the lower story but none to the upper.

Since Military Hospital has a closed
berndak all round 12 feet wide
and an open one beyond that 7 feet
wide.

The heights given above are from the
floor of the middle platy - to the top of
pole 12 ft but must be added in each
case.

Plans in view of the
Barracks in the New
Barracks -

The Canton has a room to the S. measuring 24 feet by 22. with two doors to the S. & 2 doors to the N. with four lights, and louvered openings in the wall of the same dimensions as noticed in the new barracks - two doors to the S opening into another long room, and two windows to the N. of the construction mentioned in the new Barracks -

The long room measures 53 feet by twenty four. has five doors with four lights and louvered ventilators in the wall over them on each side and three ventilators in the roof, with two arched windows to the South 8 ft by 5 ft 6 communicating with a room 13 ft 8 by 24 which has a door and louvered opening on each side, and a door of communication to the S. with another room of the same dimensions and construction at the South end but not communicating directly with the last mentioned room is a room of the same dimensions as the two last, but in addition to the two side doors communicating with the berndak it has two windows to the S. The building is surrounded by an open berndak and has aprising in its rear

Pooná Barracks occupied by 11th Troop consist of 20 Bundles. Each Bundle being 38 ft in length - 24 in width - 11 in height to the wall plate and 19½ to the ridge pole, has 4 doors, 7 feet by 4, and 16 windows, 5½ feet by 3½, and is capable of accommodating 40 men allowing 53¾ superficial & 805 cubic feet for each man - a space is reserved off at the end of the verandah for a washing room and the supply of water is good & ample.

The Hospital attached to these Barracks consists of a Centre & two wings with an outer verandah 5½ feet wide, open - and an inner one nine feet wide closed. The whole building is calculated for the accommodation of 146 Patients allowing 57 superficial and 1138 cubic feet for each patient in the wards in the wings - and 58 superficial & 1143 cubic feet for each in the Centre wards - Each wing measures 119 ft in length 24 in breadth - 17-9 to the wall plate & 24 to the ridge pole has doors, and windows, and capable of accommodating 50 patients allowing the space mentioned above.

The two Centre wards are each 55-6 long, 24 broad, 17-9 to wall plate & 24 to the ridge pole high, have two doors - six windows and a ventilator in the roof, and capable of accommodating 23 patients with the space mentioned above - an additional, or Ophthalmia, ward has since been added to the S.W. wing which is capable of accommodating 12 men in the comfort. It is spacious well ventilated.

Thorpore Barracks Pooná consist of 24 Bundles. Each bundle is divided into one large room for the men and four small rooms for the non commissioned officers. Each large room in the Bundles measures 100 feet by 24 - is 19 feet to the wall plate & 25 to the roof tree and capable of accommodating 40 men allowing 50 superficial, and 1147 cubic feet for each - The whole of the Bundles verandah are capable of accommodating 1032 men -

The Hospital attached to the Thorpore Barracks consists of 4 wards Each measuring 74-4 by 24-10 in length & width - 15-10 in height to the wall plate and 22 to the ridge pole - and capable of accommodating 80 patients allowing 59 superficial, & 1013 cubic feet for each patient

Measurement and Description of the Barracks and Hospitals in the Bombay Presidency compiled by the Surgeon Major

[illegible]

Hyderabad Barracks. Consist of 12 pavilions each measuring 22 1/2 ft in length, 44 ft in breadth 25 to the wall plate & 31 to the ridge pole and is surrounded by ^{chun} ambarudah 7 feet wide. Seven of these pavilions have been completed and five remain unfinished. They face the S. & E. are built of hard burnt brick, and covered with tiles. There are smaller buildings ^(Bhatagias) for the married men in which each family has two separate rooms with a kitchen, washhouse and ^{toilet} privy. To each of the men's pavilions there is a room attached, fitted with soap casks attached to a pipe leading from a water cistern for the means of personal ablution - and on each side of this room there is a ^{toilet} privy for the use of the men. At a greater distance in the rear are the privies with movable reservoirs for the soil which are emptied daily by coolies employed for that purpose. These Barracks are the best & most complete in every respect in the Presidency and perhaps in all India - 1854. The Barracks are finished now - and a

plunge bath is in course of erection at the S.E. extremity of the Bt. which is the supply of water from a well that has been dug on the spot, & affords an ample supply of water. The Bt. is 1/2 mile long, & 1/2 mile wide, & has not yet been filled to the top. The Barracks consist of two pavilions and is capable of accommodating 150 patients with ease & comfort.

It is unquestionable in every respect so far as the plan of the building is concerned, but its position is bad, & the building is said to be insufferably hot during the summer months from the extent of tiled roof & outer wall of hard burnt brick which retains the heat for many hours after the sun has set.

One layer of tiles was removed from the roof of the men's barracks and a stratum of clay four inches thick substituted in its place which has rendered them much more tolerable during the hot weather - and, perhaps, it would be advisable to adopt a similar plan with the Hospital particularly with the right pavilion the roof of which has fallen in from the unreasonable condition of the wood which was employed when the Hospital was built three or four years ago. (This has now been adopted)

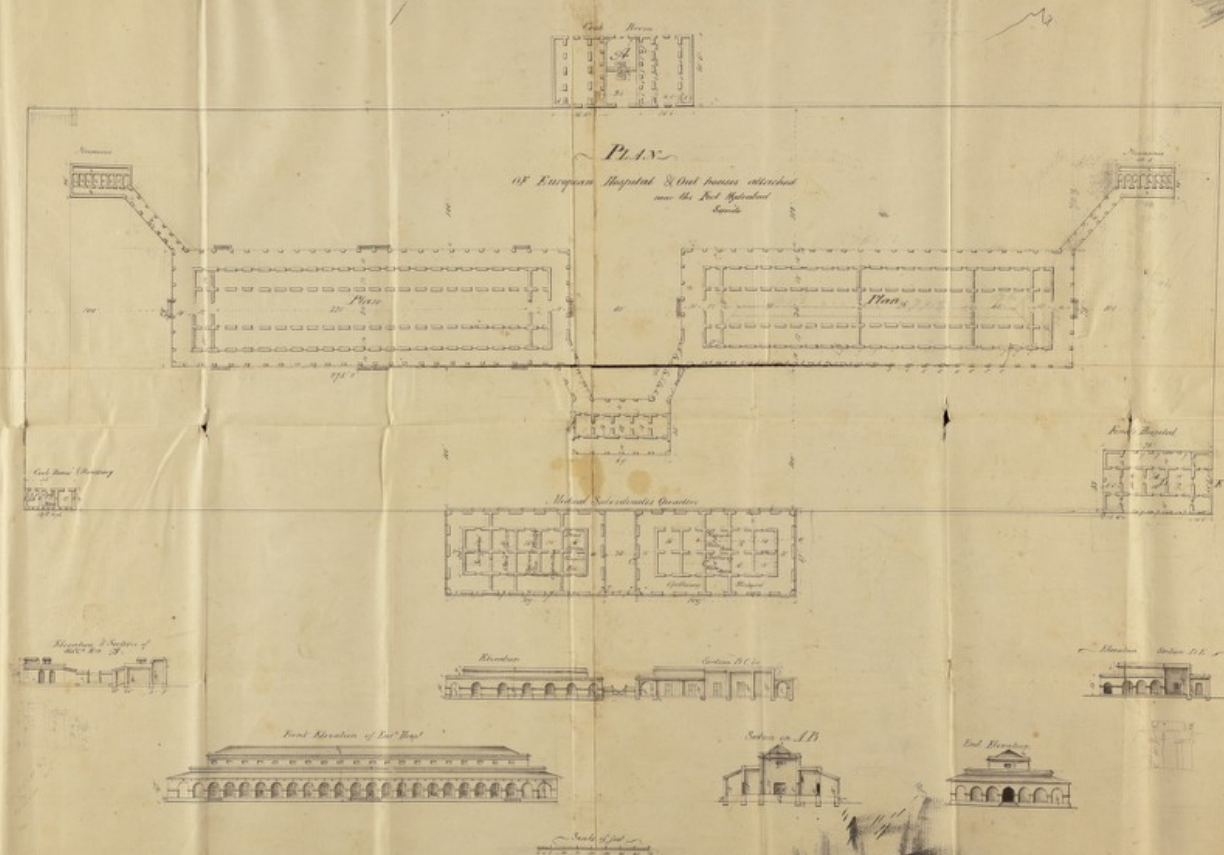
For particulars of measurement see the accompanying raised & ground plan of the Hospital and Barracks at Hyderabad -

Length of each pavilion 22 1/2 ft. breadth 44 ft. height to ridge pole 37 feet surrounded by ambarudah 10 ft wide - a wall surrounds the whole building at a distance of 100 yards making an enclosure measuring 700 ft by 288 -

Ground plan, and
Elevation of the European
Hospital at Hyderabad
in India

Presented to me by ass^t
apothecary Erismen

200/54



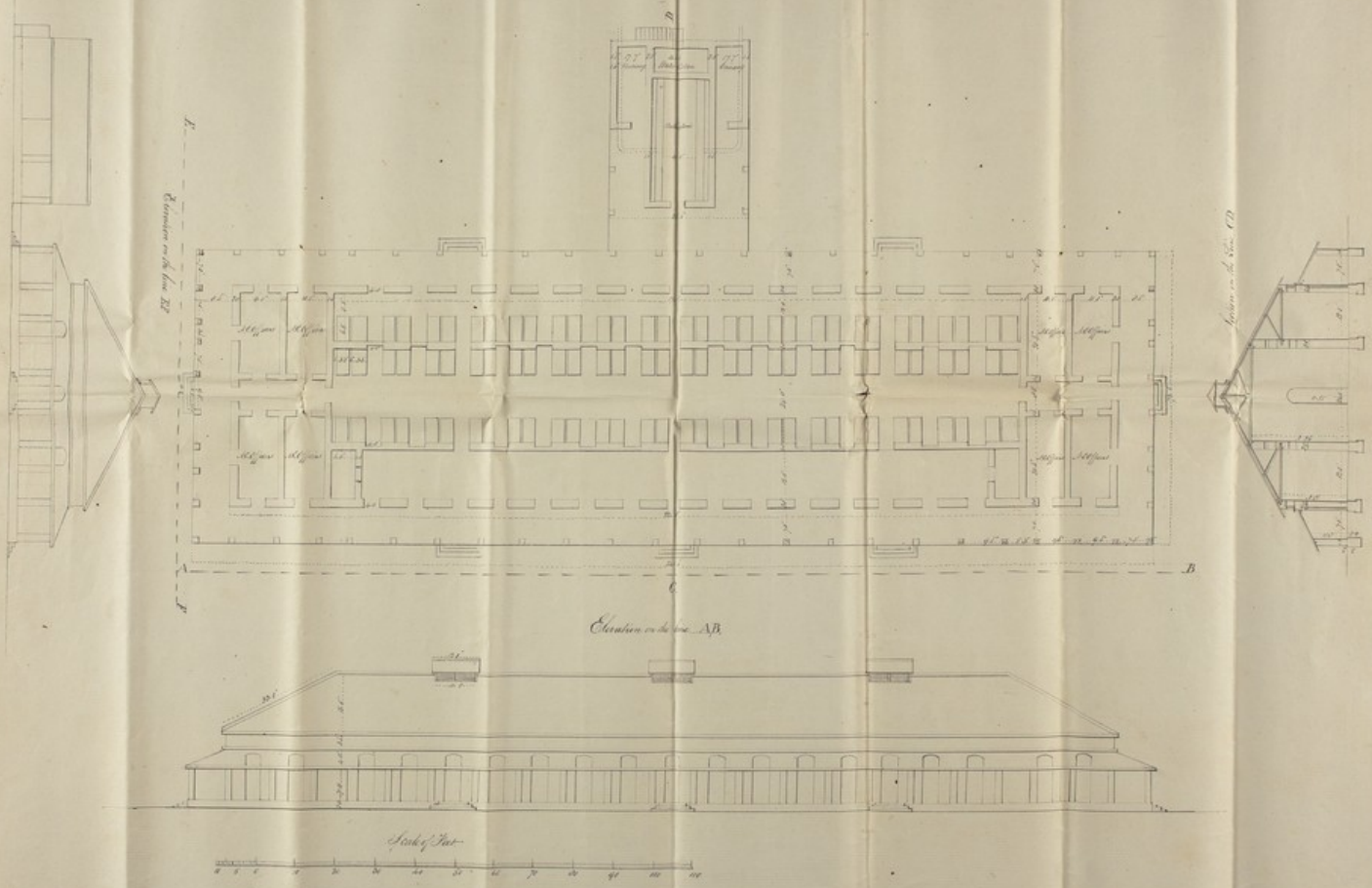
Encl. 90
Gramma plan, and
Description of the
Hospital at St. Nicholas
in St. Louis.

Printed by the
American Press

ERRI/96

Ground, and raised
Plan of the European Barracks
at Hyderabad in
Scinde.

Presented to me by ass't
apothecary Gorman



RECEIVED
From the Southern Railway
at Washington in
1888.
Received from the
Southern Railway

ERRI. 10

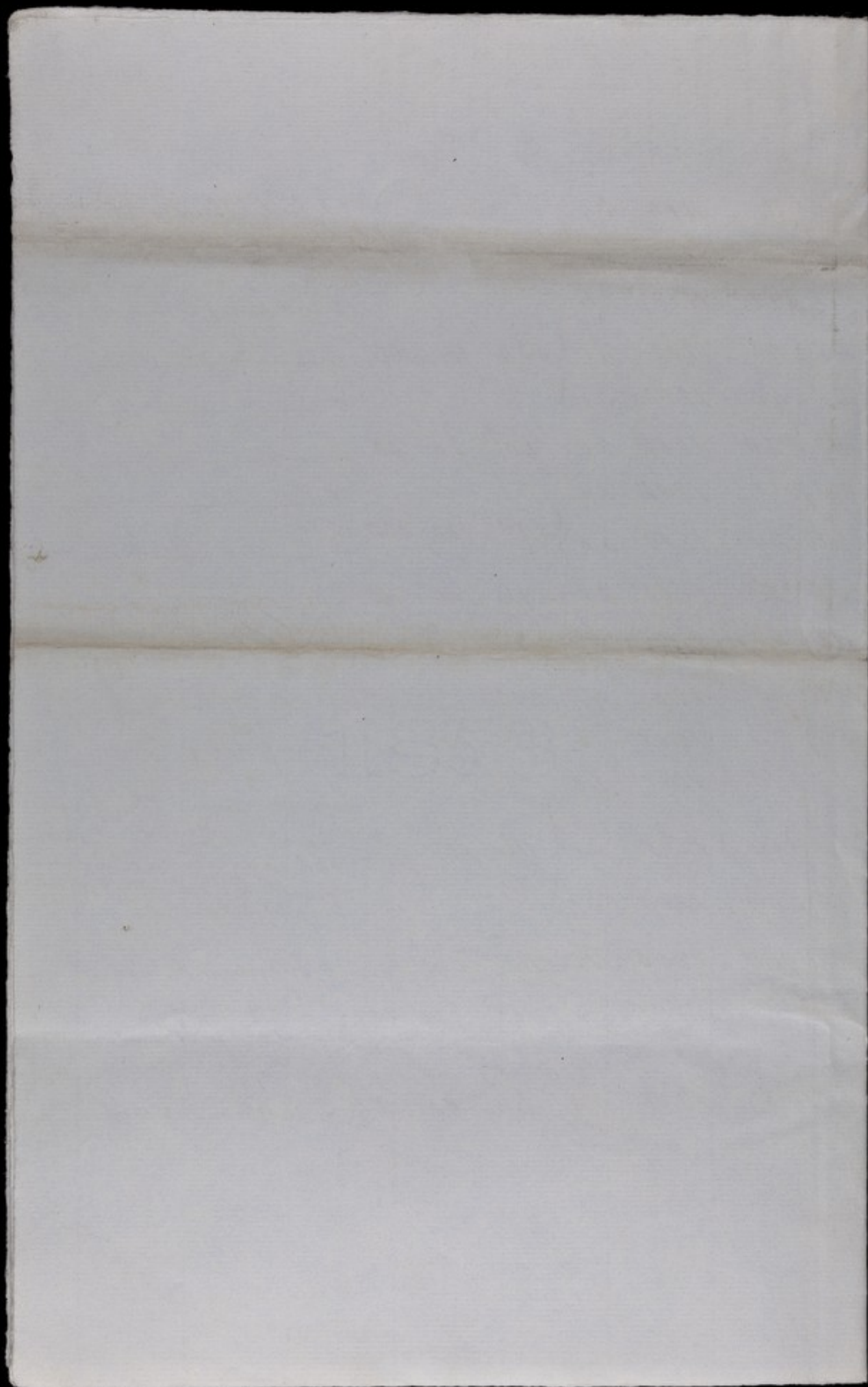
Return of Troops in Barracks in Bombay Presidency (2 pp)
Dec. 1853

Station	Designation of Building	Number	Dimension of each						Total number of buildings	Total area of buildings	Total number of rooms	Total area of rooms	Remarks
			Length	Breadth	Height	Length	Breadth	Height					
Belgaum	Artillery Barracks	}	146	32	12				40196	1200	34		2 bed rooms and 2 canteens
			160	24	17				16560	1200	14	48	90 42 for 12 married men
	Infantry Barracks	}	912	22	13				54912	1200	46		4 bed rooms to each barracks
			227	24	13				48948	1200	41	534	900 366 4
Bhopal	Artillery Barracks	}	112	24	13				45240	1200	38		5
			395	24	10				23520	1200	20	60	90 30 2
	Infantry Barracks	}	876	24	13				53768	1200	45		5
			424	28	14				66129	1200	55	580	900 320 8
Deesa	Artillery Barracks	}	314	23	12				38916	1200	32	96	100 4 1
			974	24	10				56542	1200	47	423	6
	Infantry Barracks	}	675	21	10				56070	1200	47	252	
			1824	24	14				88704	1200	74	1332	900 4 bed rooms to each Bk
Merrabee	Artillery Barracks	}	137	24	13				48210	1200	40		Upper rooms, the lower rooms are used for canteens and housing - 4 bed rooms to each Bk & canteens for 10 married men
			126	24	14				45696	1200	38	116	100
	Infantry Barracks	}	139	27	12				45036	1200	38		
			1027	24	20				132960	1200	111	1110	900 4 bed rooms to each Bk
Hyderabad	New Infantry Barracks	}	1074	24	23	12	18		98310	2431	9	70	700 900 200 8
									71928				and canteens for 60 married men
Poonj	Artillery Barracks	}	296	22	19				40128	1200	33	66	90 24 2 bed rooms to each Bk

ERR 2/5

Quarter Master General's Office Penna. December 1853.

Station	Designation of Barracks	Number	Dimensions of each			Total Length	Total Breadth	Total Area	No. of houses	No. of houses	No. of houses	Remarks		
			Length	Breadth	Height									
Bombay	Lower rooms	3	143	235	11.5	316	10	18	37100	10	340	57		
	Upper	3	143	235	11.5	316	10	18	37100	10	340	57		
	Inner rooms	1	296	442	11.5	340	10	18	37100	10	340	57		
	Outer rooms	2	296	442	11.5	340	10	18	37100	10	340	57		
Colaba	Infantry Barracks	6	228	324	12	324	9	7.6	36720	1200	71	426	450	24
	British Regt Barracks	4	228	324	12	324	9	7.6	36720	1200	71	426	450	24
	Lower rooms	1	106	63	10	106	63	10	106	63	10	106	63	10
	Upper	1	106	63	10	106	63	10	106	63	10	106	63	10
Poona	Left Flank	14	90	24	10	90	24	10	21600	1200	18	432	900	168
	Right Flank	14	90	24	10	90	24	10	21600	1200	18	432	900	168
	Inner rooms	10	107	247	16	107	247	16	107	247	16	107	247	16
	Upper	10	107	247	16	107	247	16	107	247	16	107	247	16
Kharkee Coochy Barracks	Lower rooms	10	107	247	16	107	247	16	107	247	16	107	247	16
	Upper	10	107	247	16	107	247	16	107	247	16	107	247	16
	Inner rooms	10	107	247	16	107	247	16	107	247	16	107	247	16
	Upper	10	107	247	16	107	247	16	107	247	16	107	247	16
Mundawga Artillery Barracks	Lower rooms	10	107	247	16	107	247	16	107	247	16	107	247	16
	Upper	10	107	247	16	107	247	16	107	247	16	107	247	16
	Inner rooms	10	107	247	16	107	247	16	107	247	16	107	247	16
	Upper	10	107	247	16	107	247	16	107	247	16	107	247	16



Contemporary Medical Archives Centre
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ERR1 / 11 -12 transferred to ERM 2

Now numbered ERM 2 / 6 c and ERM 2 / 6d

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Oct. 5th

ERRI/13

At 11:20

24 14 at Kurrachee
25 14
26 19
27 10
28 14
29 16
30 10
31 14

At 11:20

1 11
2 10
3 14
4 14 Shigree Bunder
5 11
6 11
7 5
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16 8
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19 12
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22 10
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25 10
26 8
27 31 Kurrachee
28 32
29 19
30 17

At 11:20

1 15
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18 16
19 6
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Shigree
39-40 med
46-48 med
62-55 med
145-160 med at Kurrachee
101-115
74-84
64-74

From 23rd to 31st
Kurrachee
39-40 med
46-48 med
62-55 med
145-160 med at Kurrachee
101-115
74-84
64-74

Sum $\frac{A}{200}$

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ERRI/14

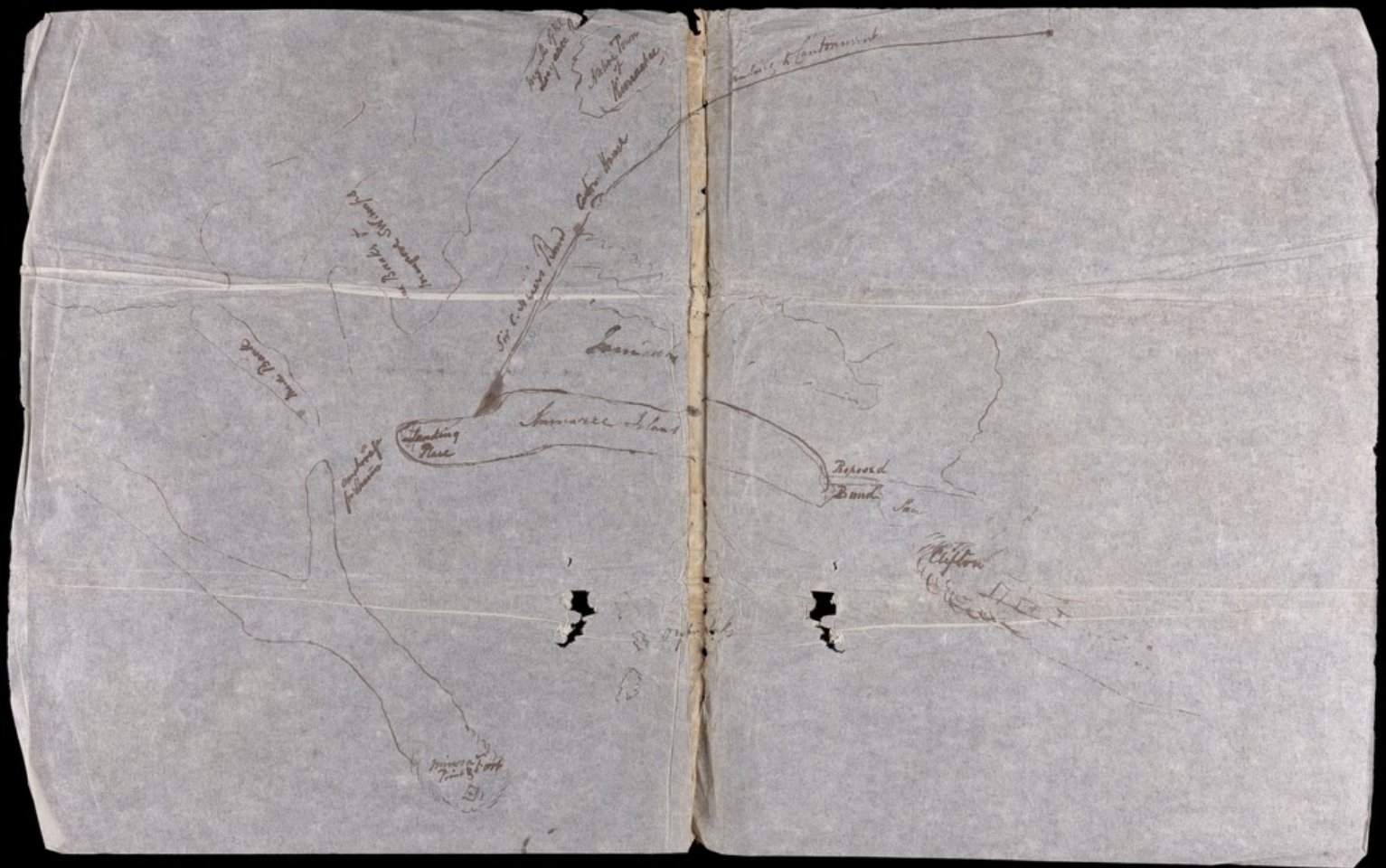
*Rough ground Plan of the
Hydrabad Cantonment*

n. d.

ERRI/14

PLAN of HOSPITAL & Barracks
H.M. 83rd Regt
HYDRABAD. SINDE



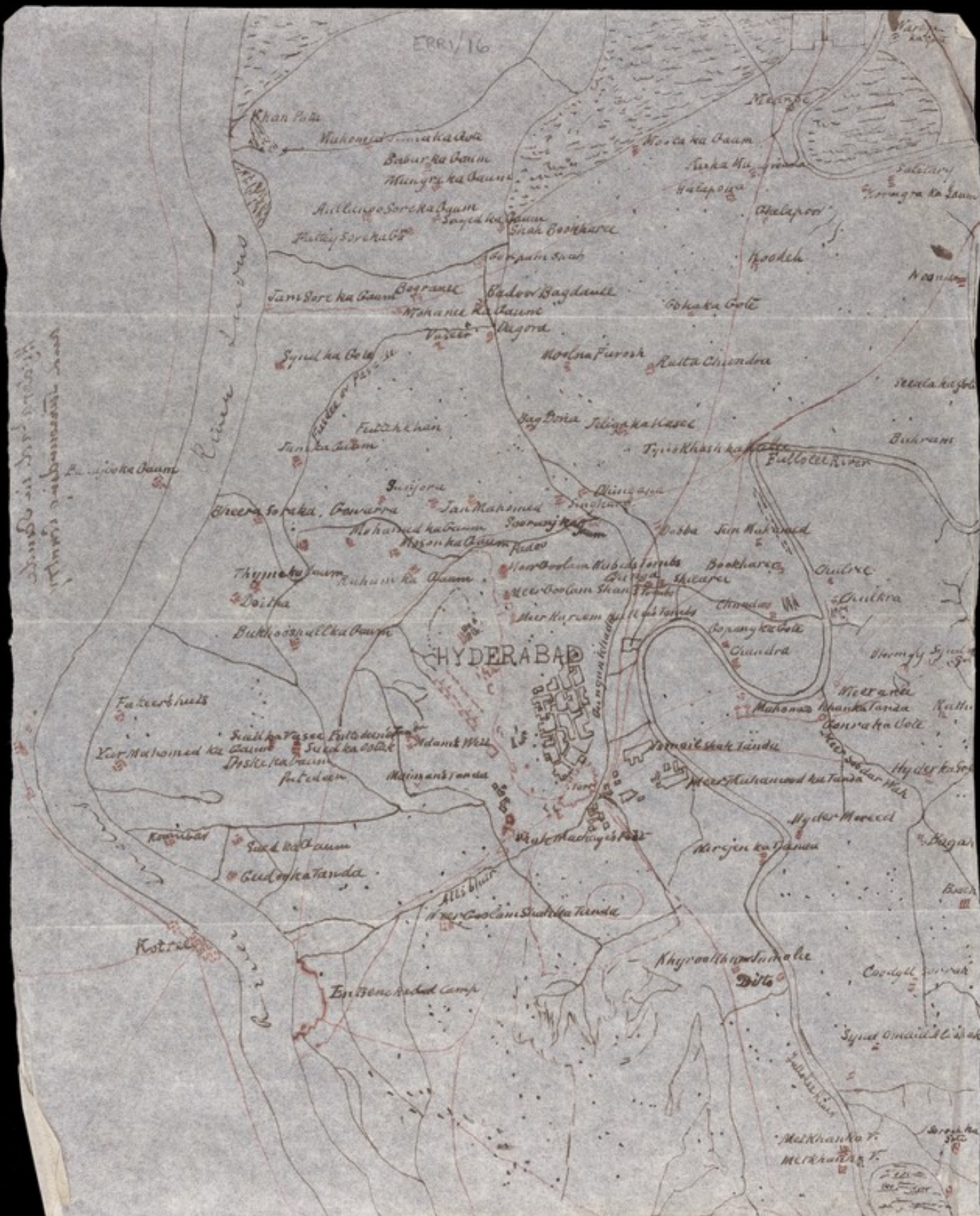


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Minor Point Summer Island
a small island in the Sound



ERR 16





ERRI/18

Barack accommodation
in the Bombay Presidency.

1854

and the proposed increase
to complete it to the scale
laid down by Government
for European troops serving
in India.

Station	Designation of Hospital	Number	Dimensions of each					Total Cubic Content including Class Rooms but exclusive of roof space	No. of cubic feet per man	No. of men for whom there is ac. commutation			No. of men for whom ac. commutation is required	No. of men for whom ac. commutation is required	Remarks		
			Length	Breadth	Height	Length	Breadth			Height	Land	Water				Total	
Munawar	Military Hospital	2	65	24	14			21840	1800	12						Accommodation reqd for a Battalion of	
		1	70	24	14	56	10	5	23520	1800	16	40	51	11		116 men at 12 per cent	
	Military Hospital	2	37	20	14			10260	1800	6	12	12				D ^o for a Comp of 102 men at 12 per cent	
		No 1 Ward	1	84	22	13	86	9	5	36524	1800	29					D ^o for a Regiment of 1067 men
Belgaum	Infantry Hospital	1	84	22	13			36524	1800	21	58	128	70			at 12 per cent	
	Entire Ward	1	52	22	13			14872	1800	8							
Sholapur	Military Hospital	2	31	24	15			1160	1800	6	12	12				D ^o for a Comp of 102 men at 12 per cent	
	Entire Ward	1	54	23	13	55	6	9	9	16146	1800	11				D ^o for a Troop of 111 men at	
Dera	Military Hospital	2	20	23	13	21	5	9	9	14900	1800	5	21	11		10 per cent	
		Entire Ward	2	20	23	13	21	5	9	9	14900	1800	5	21	11		
	Infantry Hospital	4	55	23	13	56	9	5	6	17530	1800	12				D ^o for a Regiment of 1067 men	
		2	25	25	13	26	9	5	6	12250	1800	6	60	107	47		at 10 per cent
Roorkee	Military Hospital	1	55	14	18	46	8	9	15	28226	1800	15	15	15			D ^o for 102 men at 10 per cent
		2	39	31	12					32118	1800	18					
	Old Infantry Hospital	2	66	31	12					26864	1800	14	72	128	56		D ^o for 1067 men at 12 per cent
		2	16	31	12					6882	1800	4					
Munawar	Military Hospital	1	79	24	25	10	8	12	18	47400	33569	26	26	13			D ^o for a Troop of 111 men at 12 per cent
		Entire Ward	1	96	24	20				4640	1800	26					
	New	Upper story	1	97	24	14				33269	1800	19					D ^o for a Regiment of 1067 men
	Infantry Hospital	2	87	10	22	20				12162	1800	21	91	128	37		at 12 per cent
		D ^o	2	20	12	18				4374	1800	2					
Lahore	Infantry Hospital	1	22	24	25	44	12	18	6	13320	3132	74					Accommodation reqd for 1067 men
		Right Wing	1	20	24	25	44	12	18	6	10850	3132	22				at 10 per cent
		Left Wing	1	20	24	25	44	12	18	6	10850	3132	22				
		Central passage	5	12	12	18					3664		1	161	160		
		End Rooms	4	12	12	18					2664		1				
Munawar	Military Hospital	2	24	12	18					5328	1800	3					

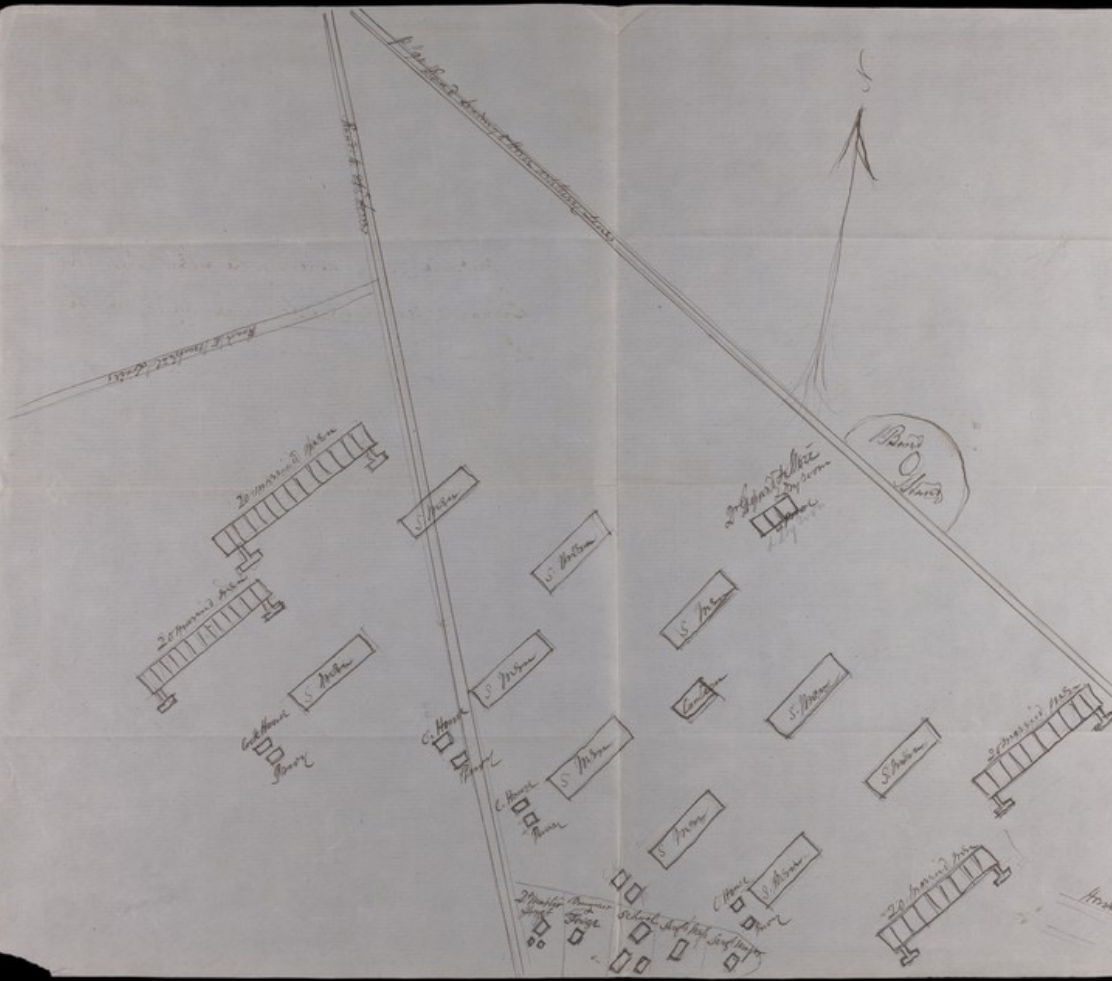
Return showing the greatest number of Patients each European Hospital in the Bombay Presidency is capable of containing at a minimum of 1800 cubic feet per man ————— Quarter Master General's Office, Poona

ERRA/18

Station	Designation of Hospital	Number	Dimensions of each						Total cubic feet	No. of Patients	No. of men whom there is no accommodation	No. of men whom there is no accommodation	Remarks
			Length	Breadth	Height	Length	Breadth	Height					
Bombay	Fort George Hospital	1066	22	12	4	22	12	4	25877	1800	24		Accommodation required for 2000 men at 15 percent
			22	12	4	22	12	4	25877	1800	17		
			22	12	4	22	12	4	25877	1800	20		
			22	12	4	22	12	4	25877	1800	18		
Colaba	Infantry Hospital	200	20	15	6	20	15	6	3700	1800	23		D ^o King of 5000 men at 15 percent
			20	15	6	20	15	6	3700	1800	14	111	
			20	15	6	20	15	6	3700	1800	16		
			20	15	6	20	15	6	3700	1800	16		
Poona	Muz Military Hospital	121	24	16		24	16		7660	1800	4	14	D ^o D ^o for 11 men at 10 percent
			24	16		24	16		7660	1800	2		
			24	16		24	16		7660	1800	8		
			24	16		24	16		7660	1800	4	12	
Poona	Right Flank Infantry Hospital	1120	24	16	12	24	16	12	46080	1800	31		D ^o D ^o for a Regiment of 1000 men at 10 percent
			24	16	12	24	16	12	46080	1800	27	84	
			24	16	12	24	16	12	46080	1800	7		
			24	16	12	24	16	12	46080	1800	8		
Poona	Left Flank Infantry Hospital	2132	22	14	10	22	14	10	20666	1800	28	72	D ^o D ^o not required by troops
			22	14	10	22	14	10	20666	1800	19		
			22	14	10	22	14	10	20666	1800	18	74	
			22	14	10	22	14	10	20666	1800	10		
Shirkee	Cavalry Hospital	290	24	14		24	14		36240	1800	17	66	D ^o for a Regiment of Cavalry of 700 men at 12 percent
			24	14		24	14		36240	1800	6		
			24	14		24	14		36240	1800	17		
			24	14		24	14		36240	1800	6		

outline, and aspect of the New Infantry
Barracks recommended to be built in the
Pona Cantonment -

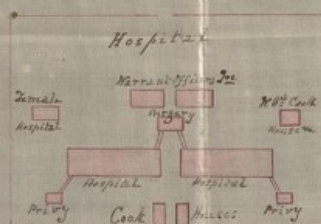
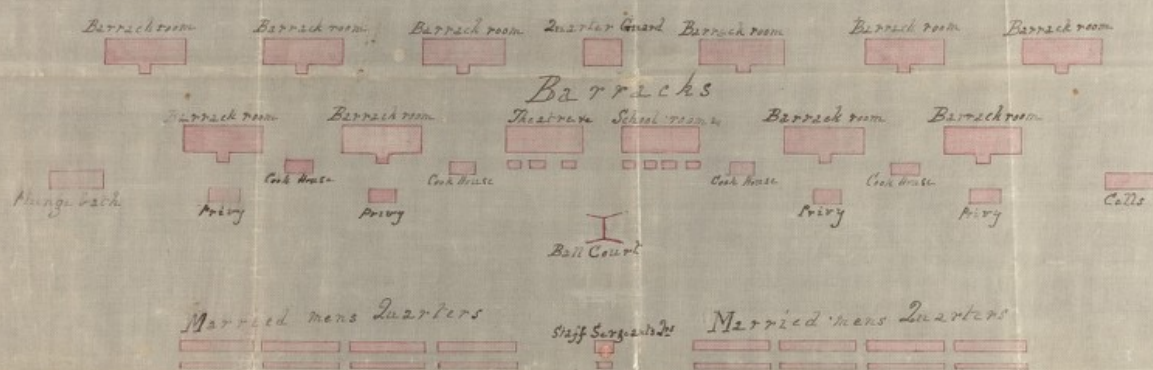
1853



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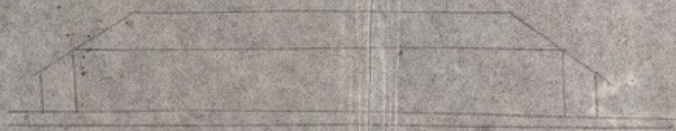
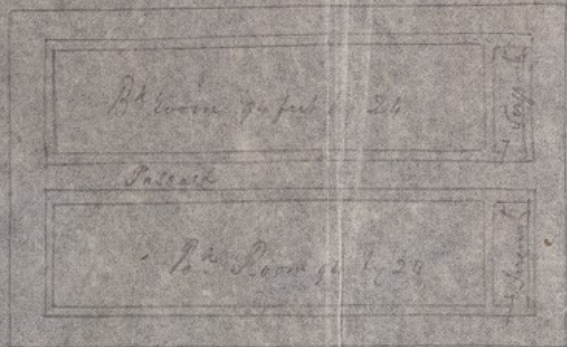
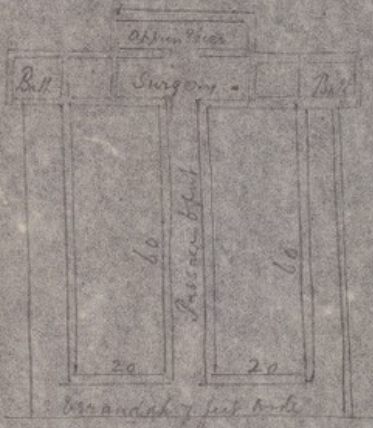
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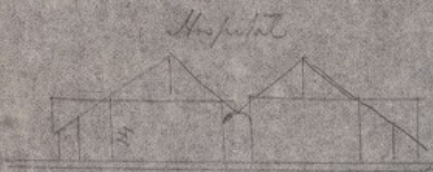


Philippine
S. A. Overman.
Engineer Dept.

ERRV/20



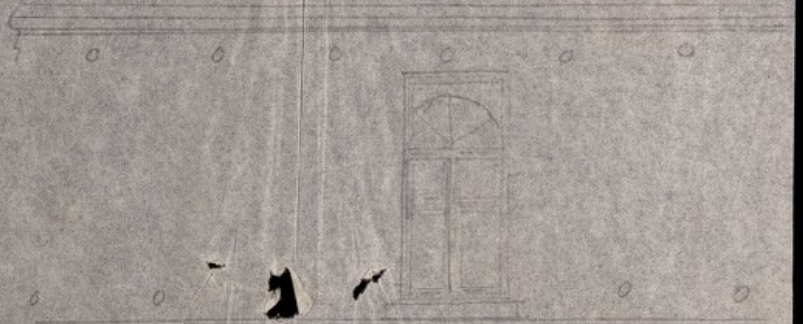
Barracks



Hospital

Recruitment Sanitarium

Proposed alterations in the
Barracks & Hospital accom-
modation there



Method of ventilation system of air holes & 1/2 ft



SKELETON MAP
OF THE
SOUTHERN PORTION
OF THE
ISLAND OF BOMBAY,
SHOWING
THE PRINCIPAL THOROUGHFARES AND THE POLICE
SUBDIVISIONS, WITH THE POPULATION AND PUBLIC
WELLS AND TANKS OF EACH.

The country houses of the rich, and the residences of the nobles, are situated at Malabar Hill, Colaba, Fort, and Market. The houses of the rich are situated at Malabar Hill, Colaba, Fort, and Market. The houses of the nobles are situated at Malabar Hill, Colaba, Fort, and Market.

The District of Malabar Hill is the only one in the Island of Bombay which is not a part of the City of Bombay. It is a separate district, and its population is not included in the population of the City of Bombay.

Rough Plan of Bombay
Fort & Town. Colaba &
Malabar Hill. Mazagon
and part of Parel - Taken
from the almanack of 1853

Large a proposed Sanitary Station on the Sea Coast about 9 miles S. from Vingorla, consists of an old fort raised 80 or 90 feet above the Sea - one half of which was occupied by a detachment of Invalids belonging to the 2^d Europeans from Belgium at the beginning of 1853. The accommodation consists of 11 rooms all lofty -

1. 85 feet by 13 - capable of accommodating 24 men - West - Hospital
2. 53 - by 15 - 15 - 20 - South
3. 23 - by 15 - 8 - 20 - 20
4. 31 - by 13 - 10 - 20 - North
5. 20 - by 15 ~~used as a Cookroom~~ - North
6. 16 - by 15 used as a Dispensary - S. W. Corner
7. 13 - by 13 used as a Store room - S. E. Corner.

The privy was in the S. W. Corner - Since ordered to be removed, as recommended to the S. E. angle -

8. 35 - by 13
 9. 13 - by 13
 10. 24 - by 14
 11. 13 - by 13
 12. 24 - by 13
 13. 13 - by 13
- } on the West Side along which face runs a Verandah
 } 105 feet long and 10 broad -
 } at the S. E. angle
 } on the East Side

The parapet facing the Sea on the W., in front of the room occupied as an Hospital has been ordered to be lowered from 7 to 4 feet - and the Embrasures in the East Bastion, thro' which liquor used to be smuggled into the Fort, and thro' which some of the ill conducted Convalescents used to make their escape, have been ordered to be built up -

of 59 men sent there - according to ass.^t Surgeon Mayo's report,
the medical officer in charge of the Sanitarium

32 were much improved:

22 - derived little or no benefit from the change; &

5 Died -

The following is the table of diseases under which the men labored

	Sent	Much improved	Died	Remained in Hospital on 22 nd Nov ^r 1862
Rheumatism Chron -	20	14	1	5
Hepatitis -	8	3	1	4
Syphilis Consecutiva -	9	3	2	4
Cariditis -	3	3	"	"
Bruchitis Chron: -	2	1	"	1
Lumbago -	4	1	"	3
Anasarca -	2	1	"	1
Dumb & a -	1	1	"	"
Scorbutus -	1	"	"	1
Scrophula -	1	"	"	1
Cephalalgia -	2	1	1	"
Febris Int: Quotidiana	1	1	"	"
Hamoptysis -	1	"	"	1
Paralysis -	1	1	"	0
Dyspepsia -	2	2	"	"
Lipra -	1	"	"	1
Total -	59	32	5	22

Dr Barrington's report is not quite so favorable as the above -
He states that at least one third of the men reported much benefited
and fit for duty are not likely to continue at their duty
long - and of the patients who were sent down from the
Hospital some have recovered, and all those that returned
had to be re-admitted on their arrival at Belgium -
He says the distance is considerable - Expense great - means
of irregularity easy - and the beneficial results of the
Experiment very questionable - -

*Surgeon Roberts' Comparative Statement of Sickness
in the old and New Pavilions of the Ghazipur Barracks at
Poona, amongst the men of the 78th Highlanders for the 15th of
months of the Year 1855 -*

*New Barracks consisting of 11 Pavilions
Inmates in the whole 11 Pavilions 535 -*

<i>Diseases</i>	<i>no. adm^d</i>	<i>Per centage</i>	<i>Rooms & occupants</i>
<i>Acute Complaints</i>	379	750.4	one of 41 men
<i>Diarrhoea</i>	5	0.99	one of 43 men
<i>Colic</i>	25	4.90	two of 44 men
<i>Gastric</i>	46	9.10	two of 46 men
<i>Stomach & Bowels</i>	90	17.82	one of 47 men
<i>Other Diseases</i>	116	22.97	three of 48 men
	<u>661</u>		<u>11</u>

*Old Barracks consisting of 8 Pavilions
Containing 324 inmates -*

<i>Diseases</i>	<i>admitted</i>	<i>percentage</i>	<i>Rooms & occupants</i>
<i>Acute Complaints</i>	315	97.22	1 room of 37 men
<i>Diarrhoea</i>	3	0.92	2.50 38 men
<i>Colic</i>	19	5.86	1.50 39.50
<i>Stomach & Bowels</i>	45	13.88	1 do 41.50
<i>Other diseases</i>	84	25.92	1 do 42.50
	<u>335</u>		<u>8</u>

*Per centage of ^{admission & strength} ~~inmates~~ in the
New Barracks 130.89 -*

*Per centage of ~~inmates~~ ^{admission} to strength
165.12
130.89*

Excess fold over ~~inmates~~ - 34.23

Note for visit to Saurice on the 2nd March 1854 -

There is comfortable 1st accommodation at present for 57 men which might be increased to double that amount by roofing in the remainder of the building & the S. of the one at present fit for occupation - The parapet wall in front of the habitable part of the building - or to the N. & E. by it. has been lowered to within a few inches of the Rampart, and the Embasures to the S. & E. by it. have been walled up; but one bastion to the S.E. has been left open, which, if the evil of introducing liquor into the fort, and of the Convalescents making their escape thro these Embasures, really existed this oversight would perpetuate it to the end of time - There is a deep ditch cut in the rock immediately surrounding the walls of the fort and if the rubbish were cleared away from the very few points where it has fallen in and rendered impassable and deep pits cut all access to the walls of the body of the fort would be effectually cut off; and if the doorways & breaches in the outer wall of Circumvallation were closed up, which could be done, I should think at trifling expense all communication even with the Glacis itself would be rendered difficult, as on three sides of the fort, beyond the bastioned wall of Circumvallation there is either the sea itself, or an extensive inundation with deep cuts in it for the purposes of defence - Perhaps, all these precautionary measures, which are calculated to restrain the garrison that are vicious may be considered as giving the fort the appearance of a prison, in place of an agreeable resort for the sick & feeble, and they are mentioned merely as the means of carrying out to its full extent the plan that has been recommended, and already commenced by the repairs, and alterations that have been made.

The extent of Paddy fields, and inundated ground

to the E. & N.E. of the fort I should have considered objections to its selection for a Sanitarium, and the result of the experiment made by the 2nd Europeans according to Dr Barrington's report, is not very encouraging - I certainly should not recommend any of the 500 Convalescents to be sent there this season, as they have just come from where a Scurvy Station, and their cases of Scurvy & other diseases contracted at Hyderabad in Sindia are more likely to be benefited by the cool & elevated region of Pongam than by a residence at Saurice where the prevalence of the disease exists in the neighbourhood and would be sure to exert its baleful influence on them.

Cases of Puerile disease, and of Chronic affections of the Stomach & Bowels, as well as Rheumatic complaints might perhaps derive benefit by a change to Saurice, but I am not very sanguine, I must confess, that the place will ever stand very high as a Sanitarium - It has not the full advantage of sea exposure that some of the other strong holds on the coast have which is Saurice - Abutugerry. & Buzadragy &c. - as it is bounded on the N.E. & E. by an extensive inundated flat beyond which is a chain of hills terminating in a promontory a mile or a mile & a half to the N.W. of the fort. The hill on which Saurice stands is detached from the chain of hills above mentioned, & is connected with the promontory by a narrow neck bounded on the N. by the sea & on the E. by the low inundated ground there divided to, & across this an entrenchment has been run about half a mile distant from the fort to command the approach on that side. The entrance to the inlet of the sea which runs along the western face of the fort, and furnishes the inundation to its N. & E. is darky and dangerous and only practicable with safety at high water.

inundation
Saurice
Buzadragy
Abutugerry
Saurice
Buzadragy
Abutugerry
Saurice
Buzadragy
Abutugerry

Ball

The Barracks at Belgaum consist of 13 Pavilions built in two parallel lines. 7 in the first facing the S.E. & 6 in the back with the same aspect. The lines are 60 yards apart & the buildings from 15 to 18 yards from each other. There are two kitchens & two privies attached to these B's, and at some distance behind the Barracks for the married men. The rooms are, 8 of them 192 feet in length, 3-15 1/2 feet in breadth, and 13 in height to the beam plate. The beams are 8 in x 9 in & 2 1/2 feet thick. Each room has three ventilators in the roof - 8 doors of 20 to 28 feet high. On the S.W. there is an open verandah 10 feet 8 wide with a projecting roof of 2 feet beyond the building to throw off the rain - at the back of each building at the corners are the washing closets & urinals - a trench 2 feet deep & 14 inches wide surrounds each building to carry off the surface water. The 3 small rooms are fitted for 60 & the larger for 85 men each. The privies are 50 paces from the nearest point of the Barracks.

^{from the Barracks}
 Hosp. The Hospital is about 400 yards distant from the Barracks and separated from them by a nullah which in the ^{centre of the Barracks} is surrounded by a stone wall 9 feet high enclosing a space of 426 by 162 feet. It consists of a Centre & two wings joined together by covered ways - and will accommodate 102 patients. It is proposed to increase the Hospital accommodation at this post by extending the two wings, and putting an upper store on the Centre or connecting building. A separate Ward for Phth Malina or infectious diseases such as small pox, one of which proved fatal the day before my visit, ought to be erected, and in the mean time a room on the ground floor of the Eastern pavilion at its northern extremity, now occupied as a bedding store, ought to be set apart for the purpose, which can be done without inconvenience by merely taking up the bed room with the shelves contained in the one proposed to be vacated and appropriated for medical use.

The Kitchens for the married men are much out of repair and are undergoing repair at present. The married men gone being of the Regt. being accommodated in tents just now.

The quarter Guard is too small for the number of men whom must guard here () and the room appropriated for prisoners under temporary confinement, which consists of a slip of the verandah running along the north end of the Guard room is quite unsuited for the purpose, and ought to be replaced by cells or a proper room.

The guard room at the Prison cells is constructed
in the same way, as the dry room at the quarter guard
and ought to be improved, or a proper guard house
built - Verandahs on the N. E. face of the barracks
are required, as the rain from that quarter beats
into the rooms during the prevalence of the Indian
monsoon - a Bath too is required for these Bk.

Cantonment of Sahara

ERR/25

Mean Maximum Range of the Thermometer taken from
observations for three years — 83.3

Mean Minimum of ———— 67.9

Mean Temperature — — — 76-6

Fall grain for the same period.

Mean Annual quantity — 38.51 inches

Number of days on which rain fell 81 —

Panchgunner - Situated on the Eastern side of the Table land of
Inhabitation - about ten miles from Malcolm Pit -
overlooking the Nye Valley. Its elevation is 4000
feet above the level of the Sea - 2000 above the Ocean
and 500 feet lower than Malcolm Pit -

Its temperature is two degrees higher than Malcolm Pit -
Daily variation four degrees greater -

Temperature eight degrees lower than the level land of
the Ocean - and diurnal variation twelve degrees less -