

Volume of returns and abstracts of sick; of specific illnesses, including mental illness; of deaths; of anatomical preparations; and of use of alcohol in Regimental Canteens

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ERM/1

Bombay-

Annual Return
^{of the}
and Report for 1851/52

27/8
19

Annual Returns
and
Reports

De Hall

(107) ERM 1/1

*Copies of Annual Report
of the Boundary Commission
1851/2. & 1852/3.*

De Hall

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Annual Return of Sick and Wounded of H.M. Forces in the Presidency of Bombay. From 1st April, 1851 to 31st March, 1852

Present Station	Bombay	Average Annual Strength of H.M. Forces in the Bombay Presidency during the above period 1851-52	Average daily death in Hospital 1851-52
Patients received by Regiment in the year			
11 th Bombay Fusiliers			
1 st Regiment of Cavalry			
6 th " " " " " "			
7 th " " " " " "			
13 th " " " " " "			
16 th " " " " " "			
Received			370
Admitted during the above period			951
Total Treated			1421
Discharged during the above period			936
Died D ^o D ^o			141
Remaining			335
Proportion of Deaths to the Number Treated			10.2
Diseases of Men discharged from the Hospital in the above period, as ascertained from Private Returns in absence of Disease			176

Note. Health Inspectors have been made weekly for each day and continuing diseases by Surgeons and Apothecaries of Regiments.

Signed / I. Hall M.D.
Surgeon General of Bombay Presidency

Monthly Abstract of the Admissions and Deaths of each Description of Sick

Recapitulation

N^o 1 Annual Return of Diseases of the Eye in Mr's Dept from 1st April 1851 to 31st March 1852. — N^o 2 Annual Return of Contractions in Mr's Dept from 1st April 1851 to 31st March 1852.

Diseases	Admitted	Discharged	Remained	Total	Admitted	Discharged	Remained	Total	Table
Ophthalmia without purulent	7	106	28	131	1	—	—	1	Table
Discharge of one eye	—	—	—	—	—	—	—	—	Table
Discharge of both eyes	5	62	22	89	—	—	—	—	Table
Ophthalmia with purulent	2	2	—	4	—	—	—	—	Table
Pterygia	—	—	—	—	—	—	—	—	Table
Amoebae	—	—	—	—	—	—	—	—	Table
Ophthalmia with purulent discharge one eye	1	3	1	5	—	—	—	—	Table
Ophthalmia with purulent discharge both eyes	—	—	—	—	—	—	—	—	Table
Cataract	—	1	—	1	—	—	—	—	Table
Total	15	220	51	286	1	—	—	1	Table

Argument	Nature of Contractions	Contractions	Remained
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage
Contractions and stoppage	Contractions and stoppage	Contractions and stoppage	Contractions and stoppage

N^o 3 Annual Return of Diseases of the Skin in Mr's Dept from 1st April 1851 to 31st March 1852.

Diseases	Admitted	Discharged	Remained	Total
Remained	—	—	—	—
Admitted	1	—	—	1
Total	1	—	—	1
Discharged	—	—	—	—
Remained	—	—	—	—

Name	Age	Sex	Contractions	Remained
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions
Mr's Constance	25	Female	Contractions	Contractions

193—Annual Return of Vaccination in New York, from 1st April 1881 to 31st March 1882

No 9 Annual Return of Fards in H^{rs} Regiments from 1st April 1831, to 31st March 1832.

	No.	Of these were previously vaccinated	Of these were not vaccinated	Source	Result	Total
Jim	2	"	1 and the other not known	2	"	2
Wanda	"	"	"	"	"	"
Carlson	1	"	"	"	very mild	"

General Annual Return of Diseases Tubercular in nature of
Fatal Cases which Tubercles were found in any internal organ after death in
Her Majesty's Regiments in the Bombay Command
From 1st April 1851 to 31st March 1852

Regiment	Rank and Name	Age	Period of disease	Period of the Return	Disease which has proved fatal	Tubercles of Lungs	Tubercles of	
	Private Stephen Charles	24	7	6	4	11	Extensive disease of Lungs. left pleura much diseased, and extensive effusion in one cavity. Both lungs tubercular and a large cavity in left lung.	
10 th Regt.	Corpl. Patrick Godoy	33	11	6	5	3	Ditto. Both lungs almost completely disorganised several abscesses in the apex of each and they were thickly studded with milky tubercles through- out.	
	Private Thomas Lees	24	8	4	5	3	Ditto. Both lungs minutely studded with milky tubercles throughout their whole extent. large Vomica in left lung. Several old pleuritic ad- hesions on left side.	
	Private James Sergeant	27	8	.	.	1	Ditto. No Post mortem, died at Camp Anjar en route to Bombay being invalided.	
8 th Regt.	Private Joseph Johnstones	24	3	.	.	11	Ditto. No Post mortem, died at Pa. en route to Bombay being an invalid.	
	Private William Cairn	21	2	.	.	10	Ditto. Each lung was found ad- hering to the walls of the Chest by numerous thin lamae, and several large cavities were found in the upper portion of them also clusters of tubercles scater- ed freely throughout their structure.	
6 th Regt.	Serjt. George M. Loughlin	35	16	1	2	10	Ditto. Tubercles of both lungs	

Right	Rank and Name	Age	Period of Infection	Period at the Station	Period which has passed fatal	Tubercles of Lung	Tubercles of		
78 left	Drum Joseph Flanagan	22	52	5	6	Both Pul.	Tubercles were found in both lungs.		
	Pte Murdoch Ferguson	28	10	8	5	2	Ditto	Tubercles in both lungs, the left reduced in volume and the cavity filled with serum.	
	Pte George Murray	18	5	5	6	Ditto	Scarcely any trace of the right lung - Left full of tubercles in various stages.		
	Pte Edward Macdonald	22	52	10	10	Ditto	Both lungs contained tubercles in all stages.		
83	Pte John Jackson	25	4	5	3	1	2	Ditto	Left Lung one mass of suppur. matter. No tubercles in the right.
	Pte William Ryan	27	2	4	5	1	4	Ditto	Each lung contained tubercles in various stages in the upper half of the left one were several Venices varying in size from an almond to an Egg. died at Colaba.

Signed / S. Hall m.l.c.
 Deputy Inspector General
 H.M.S. Hospitals

Signed / J. Hall M.D.
Deputy Inspector General
S. M. S. Hospitals.

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No. 1

Return of Diseases and Deaths at Bombay

From 1st April 1851 to 31st March 1852.

Average Strength of the Command	Total in the List Returning	Total Deaths of Men included in this Return				Total Deaths of men not included in this Return	Grand Total of Deaths	Invalids	Cured	Proportion of Deaths to Men	Proportion of Deaths to Wounded	Remaining
		Diseases	Wounds	Accidents	Total							
— 5793 —	9908											
Of the following numbers are —	Of these the following numbers are —											
Recruits — 368	Numbers are 190				190	14	194	176	332	1/2	1/2	332
Reconduits — 20	Relapses											
Total 320	— 1113 —											

Of these were —

Diseases	Number occurred	Number died	Number invalids	Remarks
Fever	2387	32	3	
Pulmonic Complaints	478	21	15	
Hepatic — S.	530	9	30	
Bowel — S.	2298	92	21	
Varicella	2	2		
Wounds	66			
Accidents	434			
Others	3713	34	107	
Total	9908	190	176	

Signed J. Hall, M.D.
Lieut. Col. & Genl. M.D. & Surgeon

General Result for the Year ending 31st March 1852, and the three preceding years

	1848-49	1849-50	1850-51	1851-52
	Per Cent	Per Cent	Per Cent	Per Cent
Proportion of Admissions to Numerical Strength	175.14	190.0	155.61	164.64
— Ditto of Deaths to — Ditto —	2.62	4.36	2.71	3.27
— Ditto of — Ditto — to — Ditto excluding deaths from Cholera —	2.62	3.53	2.13	2.45
— Ditto of — Ditto — to the total Sick treated —	1.51	2.22	1.68	1.91
— Ditto of — Ditto — to — Ditto excluding Cholera —	1.51	2.24	1.07	1.44
Average daily number of Sick to Numerical Strength	7.71	9.87	5.61	6.3

Signed / I. Hale, Secy.
 Secy. General of H.M. Army

General Abstract of the Preaching Return.

Total Strength — 5793. —	Diseases																			
	Septicæmia	Peritonæa	Cholera	Colicæ	Diarrhoea	Dyspepsia	Spasmodic	Exanthematous	Erysipelatous	Subcutaneous	Remittent	Typhoid	Septicæmia	Inflammation of Throat	Inflammation of Viscera	Inflammation of Lungs	Inflammation of Pleura	Inflammation of Peritoneum	Inflammation of Brain	Other Complaints
Remained 31 st March 1854	1	11	3	18	15	14	38	26	13	9	14	4	11	46	5	66	19	16	15	25
Admitted	74	120	212	27	439	633	1015	372	346	440	235	105	264	18	228	703	63	2,041	3,740	953
Discharged	25	120	219	24	402	639	1,004	550	495	491	240	94	261	21	217	554	62	1,821	3,240	930
Died	48	1	4	530	9	4	19	9	1	3	9	15	3	22	—	—	—	—	—	9
Remaining	1	13	17	10	21	8	36	17	3	8	8	1	5	32	7	74	14	14	5	45

Table showing the proportion and result of Diseases in the several Divisions comprehended in the preceding Return.

Presidency Division		Number of Deaths for the whole year.	Recovered	Discharged	Died	Remaining	Principal Diseases				Other Complaints	Total Deaths	Deaths from Principal Diseases				Other Complaints	Total Deaths	Average daily number of Sick during the year.	
Cholera	Scarlatina						Dysentery	Fever	Measles	Cholera			Scarlatina	Dysentery	Fever	Measles				
Presidency Division	558	39	1134	1094	24	57	2	13	10	68	125	719	175	1	42	3	9	24	57	
Town	1737	160	3139	3166	36	117	2	107	73	16	147	1967	3199	1	3	5	7	10	35	121
Northern	1032	52	1731	1690	31	54	1	39	43	105	160	980	1783	1	5	4	6	15	31	66
Siinde	1498	99	3212	3116	103	92	69	405	92	87	112	1585	3311	16	19	10	20	103	108	
Allee	468	20	420	422	6	12	1	40	1	55	22	292	1140	1	1	5	5	20		
Total	5793	370	9538	9386	190	332	74	285	237	207	264	3928	48	4	38	32	9	59	190	365

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Annual Report of Sick of Her Majesty's Troops
serving in the Bombay Presidency.

From 1st April 1851, to 31st March 1852.

Para. 1. Topography
of Stations. Climate
and Atmospheric
Phenomena.

These subjects have been so elaborately and ably discussed by my predecessor, Mr. Thom, in his Annual Report of last year, that I have nothing to advance from my own observation, in addition to what he has stated. The only point I could have wished more particularly noticed in Mr. Thom's report is the Electric condition of the atmosphere, and its influence on the health of the Troops; but strange to say this universally diffused Element, and prime agent in all nature's changes has been so cursorily alluded to that it scarcely amounts to any notice at all, and in the list of Meteorological apparatus applied for by him for the different Military Stations in the Presidency, and liberally granted by the Indian Government, no instrument for ascertaining the nature, and amount of the Electric fluid contained in the atmosphere has been included, which I consider an important oversight, for I look on this Element as a much more active agent in the generation of disease than either heat, or moisture, which have been so fully commented on by my predecessor. Indeed Electricity is now acknowledged to be the prime mover in all the operations and changes of both animate, and inanimate matter, and it is a question whether heat, light, and Electricity are not merely modifications of the same element. It is curious, therefore, that the effect and not the cause of atmospheric Phenomena should have been adopted by Mr. Thom as the subject of his Essay on the causation of disease; and altho' I cannot subscribe implicitly to the theory he has endeavoured to establish, or admit the data, in many instances on which it is founded, still it is worthy of every consideration, and one cannot but admire the ability, and labor with which his Annual Report has been drawn up.

The

The nature and extent of Barrack, and Hospital accommodation in this Presidency has been so fully entered into by D. Munro in his Reports of 1849, and 1850 that little remains for me to do, but make a few cursory observations on the changes and improvements, which have taken place in some of the barracks since that period, and offer my opinion on the subject of ventilation, which appears to me to have met with less consideration than its importance demands: whilst Urinaries and other topics of, in my mind, minor importance have been fully described. Much has been written, and great stress has been laid on the subject of Urinary in this Command; and considerable trouble has been taken, and great expense incurred to render them as convenient, and commodious as possible; but I question whether much advantage has been gained by erecting permanent buildings for this purpose, over the old system of open vessels, which could be emptied night and morning at a distance from the barracks, and kept clean either by simply washing them with water, or using a dilute solution of Sir William Burnett's preparation of Chloride of Lime, which is not very expensive. Whereas permanent Urinaries without the use of Chloride of Lime, or some other deodorant, or a free use of water, which cannot at all times be commanded at every station, are apt to become very offensive.

Not that I consider the elementary parts of urine capable of generating disease, but the Ammoniacal gas that is evolved during its decomposition is very unpleasant, and highly desirable to be got rid of from the vicinity of barracks. When urine and feces are allowed to accumulate in cesspools a highly dangerous gas (the Hydrosulphuret of Ammonia) is generated which proves a fruitful source of disease. It is fortunate, therefore, I think, that no attempt has as yet been made to improve the old, and universally adopted mode in this country of removing the soil daily from the privies and emptying it at a distance from the Barracks. Privies with drains to carry off the soil are a nuisance in any climate without a free command of water to flush them; and here, from the scanty supply of water at all the Barracks I have seen, they would soon become intolerable if they were adopted. It is all very fine in theory to say that plunge baths should be dug

Para 1. Position of Barracks, and Hospitals. nature of their construction extent of accommodation, and means of ventilation

ing, the water of which might afterwards be used for this purpose, but at the only stations where baths of this description have been made, they are, from the necessity of circumstances, so distant from the men's barracks as to render the surplus water totally inapplicable for any such purpose.

In the observations I have to make on the different Barracks and Hospitals I shall follow the course of my Inspection tour, and shall commence with those of Colaba.

Colaba
Barracks

The Barracks at Colaba are built on the N.W. slope of the tongue of land known under that name in Bombay Harbour. They are not raised more than a few inches from the ground, so that during the monsoon the water flows down from the more elevated part of the ridge-ways against them, and renders the floors perfectly wet, as they are neither boarded, nor even flagged with glazed, or well burnt tiles, but merely paved with a species of porous stone that allows the moisture to ooze thro' it, and keep them quite damp during the whole of the rainy season. No wonder, therefore, that Fevers, and other complaints are prevalent amongst their inmates at that period of the year, and that the post has obtained the unenviable reputation of being the most insalubrious of any within the Presidency that is occupied at present by European Troops.

But bad as Colaba is some error, I think, has been committed by my predecessor in placing the ratio of mortality so high as ten per cent, at least I cannot discover the data on which the calculation is founded; for if we take the Table of sickness and mortality of the different military stations in the Presidency for twenty years which he has given in his Annual Report to the Gov^t I think

March 1881 it only amounts to eight and a fraction per cent. viz 677 deaths, and this is giving credit for an error of 33 in the return, out of a force of 8111 which gives 8.34 per cent, but if we take the garrison of Fort George, and Bombay along with Colaba, as given in the same return, then indeed the deaths will be found to be 1125 out of a force of 11058, or 10.17 per cent. The discrepancies, however, between this Table of Mr. Thom's and the Annual Returns of sick registered in the Deputy Inspector General Office are so great that, I fear much reliance cannot be placed on the conclusions he has drawn. It is only within the last five years that the returns of sick of the garrison of Colaba have been kept distinct from those of the Naval Depot, and if we take that period it will be seen that the deaths in the garrison amount to 148 out of a force of 2604, or 5.68 per cent whereas those of the Naval Depot are 39 deaths out of an average force of 277 or 14.08 per cent.

In addition to the great defect of not elevating the Barracks at Colaba on pillars or low Arches, which ought most unquestionably to have been done had the health of the inmates been duly considered when the site on which they stand was selected, the ventilation appears originally to have been as unscientific as the buildings themselves are defective in construction; and albeit sundry attempts seem subsequently to have been made to remedy this vital defect, yet at the present day the windows and verandahs in place of being fitted with open louvers or moveable balconies are closed by wooden shutters. So that in place of having a draught hot wind blowing thro' the Barrack rooms during the monsoon at the rate of twenty miles an hour as Mr. Thom calculates, the unfortunate inmates are closed in with these wooden suffocators and compelled to breathe an atmosphere much more injurious to health than that which is loaded with moisture from the sea towards the point of saturation.

The same defect of construction noticed in the Barracks applies to the Hospital at this Station, and during the monsoon one pavilion is reported to be so damp as to be totally unfit for the reception of sick. Last year, Dr. Seitch, an Surgeon, R. F. A., states that he had to obtain permission from the Company's Superintending Surgeon, Dr. Day, to remove the sick of his Regiment into the opposite pavilion, which had previously been occupied by

Strength Garrison at Colaba
 Mr. Thom's ... 88260 ... 170826 ... 5012
 In the Annual ... 398294 ... 192532 ... 5872
 Difference ... 1034 ... 2106 ... 760

Hospital at Colaba —

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of the hospital of the Queen's Depot, and thus he was enabled to accomplish without any detriment to the service, as during the months of December and January when the Depot Hospital is chiefly occupied by recruits, and invalids the weather is generally dry, and the wards free from damp.

Colaba See has been much commended on as a station for European Troops, and a new site for a barrack. I find has been selected at a place called Chinchpoozhy, about six miles ^{the point} from Colaba, but I question much whether any thing will be gained on the score of salubrity by the change. Chinchpoozhy is situated to leeward of all the swampy paddy fields, and open drains about Bexulla, and Maragon during the S. W. monsoon, and to leeward of the swamps and low ground which connect the Island of Bombay with that of Taltette, and the main land. Its elevation is not sufficient to raise the inmates of the Barracks above the influence of the surrounding malarious districts I have mentioned; and as for the presumed advantage of preventing men from obtaining brack, by removing them that short distance from a populous town where it is to be obtained in abundance, and where no police regulations exist to prevent its sale, ^{it is} ~~it is~~ too futile to be admitted for a moment as an argument in favor of incurring the heavy expense of a removal of the barracks.

It is difficult to discover anything in the position of Colaba to render it so unhealthy as it has occasionally been, and if the Barracks had been placed on the highest part of the ridge, and properly constructed and ventilated I am of opinion much of this would have been obviated. At all events it would be matter of economy to try the experiment of altering one or two of the buildings at Colaba before incurring the vast expense of removing the whole establishment to the immediate neighborhood of a post, Matunga, that was so notoriously unhealthy in former years as to render it absolutely necessary to remove the European garrison from it, and abandon the station altogether.

Barracks
at Matunga

The Barracks at Matunga lately occupied by the right wing of the 64th Regiment, and found amply sufficient for the number of men quartered in them, are

are only 9 $\frac{3}{4}$ feet high, and are ventilated by chimney shaped openings from above, in imitation of the native houses, but why this mode should have been adopted in an open space like the cantonment of Murrachee it is difficult to say. The roofs are terraced, and were greatly damaged by the rains last monsoon. They have been ordered to be temporarily repaired, and in the event of another heavy fall of rain, ^{the barracks} would be uninhabitable. These Barracks, tho' amply sufficient for the accommodation of the number of men that has occupied them of late, were built, I am told, for a battalion of Europeans, and if so, I have no hesitation in saying they are totally unfit for the purpose, and the experiment of putting one into them, in my opinion, ought never to be made. New and substantial stone barracks of a better construction are in course of erection for a battalion of Europeans, and when completed the temporary pensalls at present occupied by the 13th Regiment will be abandoned, and I understand when the barracks at Hyderabad are finished the wing of the European Regiment which is now quartered at Murrachee will be removed to that station.

The Hospital attached to the low stone Barracks occupied by the 13th Regiment consists of two pavilions placed at the inconvenient distance of sixty paces from each other, without any communication except across an open parade ground, which is highly objectionable both as regards the duties of the Medical Officer, and the comfort of the sick, and why such an arrangement was adopted I cannot divine.

There is ample accommodation for the sick in this Establishment, and in addition to the two pavilions mentioned another detached building is set apart for the use of sick Women and Children.

The hospital belonging to the 13th Regiment is a temporary Pensall similar to those occupied by the men, and is sufficient for the accommodation of the sick.

The plan of the Hospital for the new Barracks shown to me by the resident executive Engineer, Captⁿ Hill, is objectionable in construction, and will be found

Hospitals
at Murrachee

found, I think, inadequate for the accommodation of the sick of a battalion of Europeans; but as the building has not yet been commenced these defects admit of reconsideration and amendment.

The plan approved by the Military Board consists of a building 27 1/2 feet long 24 broad, 21 high to the wall plate, and 26 to the ridge pole, with an open verandah 7 feet wide on each side, to be divided into three wards. - It is to face East and West so that the sick will be annoyed both by the morning and evening sun, the building not being sufficiently wide to protect them from its influence - and during the cold months they will be equally incommoded by drafts of cold air when either the doors or windows are opened. Captain Mills' original plan for the hospital at this station was what such an establishment for Europeans ought to be in this climate, it was a copy of the one at Hyderabad built by order of Sir Charles Napier; and when the Bombay authorities curtailed his plan of its fair proportions, had they, in place of ordering a building similar to one of the pavilions of the Queen's Bazaar, only divided into three wards, taken the proportions as to width and height of either the general Hospital, or that of the Artillery at Murrachee they would have more effectually secured the comfort and well fare of the European Soldier, than by granting him Hospital accommodation on the scale provided for the gun lascars of the Horse Company's Artillery; for the one building, as to relative proportions, seems to be a copy from the other.

Barracks
at Hyderabad

Barracks for one wing of a European Regiment have been completed on an unexceptionable scale at this station, and the building for another wing are well advanced.

Hospital

The Hospital too is on a liberal and well devised plan.

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plan, but unfortunately the site selected for it is objectionable, as it is placed in a hollow between the rising ground on which the ~~main~~ barracks are built, and the hill on which the tombs of the Ancestors of Kinde stand, having an extensive country extending up to its very walls. The building itself is spacious consisting of two wings with appropriate out offices, and is capable of accommodating 150 patients. It is built of hard burnt brick, and covered with tile, but, notwithstanding its height and width, is said to be insufferably hot during the summer months, from the extent of brick and tiled surface retaining the heat for many hours after the sun has set. The same inconvenience was felt in the men's barracks until one layer of the tiles was removed and a stratum of clay put under the other - Since which, the men say, they have not been incommoded nearly so much by the heat, as they used to be formerly. The same plan might be adopted with the hospital, or it might be, what is called chuppered, that is covered with coarse grass matting during the hot months at very inconsiderable expense. The roof of one pavilion has fallen in, from some defect in the timber that was used, and in roofing this again the plan resorted to at the Barracks ought to be adopted. Tho' it is difficult to imagine the inconvenience from heat ^{as the Hospital is} ~~compted~~ of, in a building so spacious with ^{as the Hospital is} ~~sunbeams~~ in each ward.

The whole building is 650 feet in length 48 feet in width and 30 feet to the ridge pole, and has an open verandah 10 feet wide all round it. The dead house requires to be fitted with a proper table &c. for the purpose of making post mortem examinations - and a covered way from the Kitchen to the wards is desirable. The Hospital is surrounded by a wall, which is 100 feet distant from the main building in every direction, and this renders the Establishment complete.
1300

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Both the Barracks and Hospital are on a scale and plan that ought to be adopted at all stations intended for the accommodation of European troops in India, and will stand as a lasting memorial of the wisdom and humanity of Sir Charles Napier, who planned and ordered them to be built.

Barracks,
at Stoke

The old barracks at this station are faulty both in construction and ventilation, but two new pavilions have recently been erected to replace two that were accidentally burnt down about two years ago, which are more spacious - have wider verandahs, and are better ventilated than the old ones were.

The Eastern verandahs of these two new buildings are fitted with louvers, and the means for the men's personal ablution are more ample, and in my opinion quite sufficient; but the windows of the buildings themselves, are, as is the general custom here, closed with wooden shutters, which are very objectionable, and in the present improved state of science on the subject of ventilation, it is surprising that such a mode should be continued in Barracks and buildings intended for the accommodation of numbers of human beings.

A plunge bath 50 feet long - 12 broad and 6½ deep has just been finished at this post for the accommodation of the men, but as yet, it has not been used. It is situated 755 paces in front of the men's barracks and has to be filled from a well 93 feet deep by bullock labour, but as the well, I am told, runs dry in the hot weather, I fear, the bath will not be of that advantage to the garrison as large an outlay of money ought to have commanded. The river ^{myola} Sangam is not very distant from this Cantonment, and might, one would have supposed, have been made available for this purpose.

The picket lines of the horses are open and the ^{men}

men are necessarily much exposed when on duty there either in hot, or wet weather; but it is urged in opposition to the necessity of erecting open sheds for the horses that all the duty of cleaning, and attending the horses is performed by native ghorrwallas provided by government for that purpose, which obviates the chance of any very great exposure of the European Soldier: and the horses, it is said, do not sustain any material injury from the exposure.

The Barracks occupied by the 86th Queen's Regiment in Poona this Cantonment are crowded together and indifferent, but as they have been condemned and others of a more improved construction have been sanctioned it is unnecessary to comment on them. } Barracks

The Hospital accommodation is ample, but the building is injudiciously placed between two hills, one on one side on which the mess House is built, and another on the other side on which the female hospital stands. The ground of the hill on which the mess house stands approaches so near to the hospital as in a measure to darken the windows of one ward, and obstruct the free circulation of air. It would have been much more desirable to have erected the hospital on either of these small eminences, rather than in the hollow between them.

The Barracks and Hospital at Deesa are good of their kind, - in perfect repair and quite sufficient for the accommodation of the number of men stationed there. The Barrack of the Sanitarium at Mount Abu is described by Dr. Morris as injudiciously placed, but not having seen it myself as yet, owing to its not being occupied when I was in Gujarat, I can offer no opinion on the subject. During the month of March 20 Convalescents were sent up to a Hill Fort in } Barracks and Hospital at Deesa -

the Deccan called Poorundhur about twenty miles from Poona, and if the experiment prove satisfactory a permanent Sanitary Establishment will be formed there for the benefit of the Bombay Garrison and Poona Cantonment. Poorundhur is an extensive hill not occupying one half of the crest of a mountain about three miles in length running almost due E. & W. the other half of the crest of the hill is covered by the ruins of another fort called K. Toziaghur. The elevation of Poorundhur is 4500 above the level of the sea, and as the mountain is detached from the main chain of Ghaut mountains, which run N. & S., and is nearly destitute of wood I should imagine the fall of rain there during the monsoon would be moderate. I have recommended that it should be occupied during the monsoon, as well as during the hot weather, so as to obtain correct meteorological observations, and test its capabilities at all season of the year. There is an abundant supply of both tank and spring water in both forts, which is of excellent quality and never fails.

Assistant Surgeon Todd of the 16th Regiment, the Medical Officer in charge of the Sanitarium, has promised to send me a topographical description of the post which I shall receive in time to forward along with this report.

Since my arrival at Poona I have paid a visit to Poorundhur, and am much pleased with it. I think by a judicious selection of cases to be sent up it may be made of great use to this division of the Army, but then it must be confined to cases of debility from disease, and not to organic lesions or it will soon fall into disrepute. The instructions issued by the Bombay Med. Board about the selection of cases to be sent up, when the post was first

first established, were plain and judicious enough, but they have not always been followed. However we must endeavour to be more circumspect in future and not allow cases of Aneurism of the aorta, or hepatic abscess to be sent up as neither of them are likely to derive any permanent benefit from such a change, and they only occupy the space of those who might.

The system of building very long, and imperfectly ventilated Barrack rooms which prevails in this Presidency Barracks } is by no means the most favorable, in my opinion, for the men's health, and the reason assigned to me for its adoption. ^{Diff.} - that it allows the non-Commissioned Officers to have separate rooms at each end to overlook the whole Company, and facilitates the orderly officer's duty in inspecting the mess dinners, are not, I think, sufficient to warrant the adoption of a plan so utterly at variance with the known laws of the animal economy, and the commonest Sanitary rules for the accommodation of masses of people. Air once respired is vitiated as every one knows to the extent of about six per cent by the generation of Carbonic Acid gas, and when it contains ten per cent of that noxious element it becomes poisonous and totally irrespirable. In addition to the generation of Carbonic Acid gas, the air of a crowded barrack room is further vitiated by fetid gases and exhalations from the skin to an extent that no one who has not visited a barrack room some hours after the men have been in bed can form any conception of. This peculiar animal effluvia when concentrated forms a poison of the most deadly nature, which produces typhoid fever, as surely as exposure to the malaria of a swampy district.

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disturbance generates that of an Intermittent form. - This peculiar animal poison attaches itself to the walls, and unless chemical means have been employed for its destruction, or the rooms themselves have been left freely exposed to the air the smell may be detected months after the rooms have been vacated.

In this country in place of separating men into small parties and accommodating them in well ventilated rooms the plan of crowding them into large imperfectly ventilated rooms has been adopted, where in place of breathing pure air they have to respire that which has been vitiated by their neighbours; and in this way their health is, in my opinion, more undermined than by duty, or any direct effects of the climate; for, as if crowding them together at night were not bad enough in all conscience, during the hot season, they are not allowed to leave their barrack rooms during the heat of the day either. So that there is no chance whatever of the vitiated atmosphere of the buildings ever being properly replaced by purer air. The truth of this position, I think will be found, in the good health men enjoy in the field, and in the segregation of married men, who, with all the disadvantages of wretched accommodation, and lessened comforts, do not suffer more from disease in this climate than the single men do.

This I know has been disputed, and an attempt has been made, and very properly too, I think, to obtain better accommodation for the married people, and if successful it will be found I am quite sure that the balance in point of health is in favor of those who live separately - at least my experience in other parts of the world leads me to that conclusion.

Para 3. Brief
and means of
improvement.

The Diet of the European Soldier in this Presidency, and, I believe, throughout all India is liberally provided for by the Government, and is as good of the kind as can be furnished for his use - Complaints I see have been made of

of

of the indifferent quality of the Bread and Meat issued to the troops occasionally at some of the stations, but as this is a point that rests between the contractor and the Regimental authorities it may fairly be left to their adjustment, as I do not find that any difficulty has ever been experienced in obtaining articles of a better quality when those which have been issued have been objected to, and condemned by Board of Survey.

At those stations where fresh vegetables are difficult to obtain in the Parganas great trouble has been taken, and expense incurred by the Government to secure a daily issue, and at some of them gardens have been established for that purpose, and are kept up at the public expense.

The meals of the Soldier are regulated as in other Commands. He has his breakfast of tea, or coffee, and bread in the morning:—his dinner a little after midday, and a light supper in the evening.

With the exception of Bombay, the duty of the European Soldier at all the posts in this Presidency is remarkably easy, and not in any way calculated to injure his health, and at no station have the troops been employed on heavy fatigues.

Parab.
Duty and
Employment }

At Bombay the men have never more than three, and very frequently not more than two nights in bed, which, I think, is too heavy for continuous duty in this climate, and particularly so for Bombay where the sick list is at all times heavy.

In January a force was assembled at Hyderabad in Scinde for the purpose of punishing Ali Moorad of Nigarpore, and of this force H. M's 64th Regiment formed a part and was concentrated at Hyderabad and encamped near the Indus from the 8th January to the 16th February—When, Ali Moorad having made his peace with Government, the H. Quarter Wing was
marched

marched back to its former cantonment at Munnach, which it reached on the 21st of the same month. This, with a small detachment of the 75th Highlanders ordered from Bombay to re-enforce the garrison of Aden, is the only military movement that has taken place during the present year.

Para 5. —
Internal Economy
of Regts. — Balance
of Crime & Punish-
ment. — Amusement
and exercise pro-
vided for the
men, and means
of personal ab-
lution. —

Her Majesty's Rules and Regulations for the Army, being the guide for all commanding Officers, the interior economy of Regiments differs but little in any part of the world. and the Rules and Articles of War being the law by which the Army is governed in every part of the Empire, an equal similarity of punishment for crime holds good in all Regiments likewise.

The following table of crimes and punishments is copied from the Regimental Sanitary Reports, and will afford a favorable view of the good conduct of the Troops serving in this Presidency.

Table
No. I.

Crimes for which men have been tried by Court martial and punished	11 th Regt Punjab	12 th Regt Punjab	13 th Regt Punjab	14 th Regt Punjab	15 th Regt Punjab	16 th Regt Punjab	17 th Regt Punjab	18 th Regt Punjab	19 th Regt Punjab	20 th Regt Punjab	Total	Ratio in comparison with the Army
Strength...	573	1032	555	476	468	515	1018	1055	5712			
Mutiny.....	-	-	1	-	-	-	-	-	-	-	1	
Desertion.....	1	-	2	1	-	-	-	-	-	-	4	
Violence to superior & disobeying orders.....	1	1	4	1	4	2	7	-	26			
Disobedience.....	3	-	-	-	1	2	-	-	5			
Quitting or sleeping on Post..	2	-	-	-	2	3	1	-	8			
Neglect of Duty.....	-	-	-	1	-	5	-	2	8			
Drunk on duty or under arms	-	1	2	4	1	2	11	1	20			
Habitual Drunkenness..	8	2	13	6	-	19	0	-	56			
Disgraceful conduct....	-	-	-	1	3	2	1	-	13			
Absence without leave..	2	-	3	2	1	4	4	-	16			
Wasting away with sickness	6	1	-	1	-	1	1	-	10			
Miscellaneous, see art. of war 70/.....	10	2	7	4	5	12	16	2	58			
Total.....	32	7	32	21	17	70	49	5	233			

* Sir Charles Napier late
Commander-in-Chief in India, still
very prevalent in nearly all
the Regiments in the Command,
and is a fruitful source
of crime & disease. —

Drunkness notwithstanding the exclusion of spirit from the Soldiers Ration, and the judicious limitation enforced by Sir Charles Napier was Commander-in-Chief in India, he issued an order that no soldier should be supplied with more than a gill and a half of wine or spirit, or one quart of small liquor, from the Canton, in one day, but in a country where liquor can be obtained at any time, and in any quantity, in the Bazaar this is a feeble restraint on intemperance where

the men wish to indulge.

The quantity of Wine, Spirit, and Beer consumed in the different Regimental Caravans during the last twelve months will be seen on reference to the following table; and by it it will be found that in the 10.th Hussars, where the consumption is greatest the ratio of sickness has been highest. The 10.th is quartered in a fine part of the Deccan - has had no duty to perform beyond that of the common drill of the season, and the ordinary Regimental detail. Why it should therefore have had so heavy a sick list for some years past I am at a loss to discover, as there is nothing in either the position of the Barracks at Poona, or the duty of the men to account for it satisfactorily.

The garrison of Colaba comes next to Poona in point of admissions; but there the sickness and mortality is at all times great, and in addition to an admitted unhealthy locality the men have heavy garrison duty to perform all the year round.

The quantity of Wine Spirit and Beer &c consumed in the Regimental Hospitals is also very great, but considered indispensably necessary by the medical Officers, I presume, from the previous habits of the greater number of patients who come under treatment for disease. I have compiled a Return, from the Regimental Monthly Returns, of the consumption of fermented liquors in the different Hospitals which is annexed and numbered 3.

Table 42.

Return of the Consumption of Spirits, Wines and Malt Liquors in the Companies of the undermentioned Regiments in the Bombay Command for the year ending 31st March 1852.

Regiments	Spirits (Company)			Wine			Malt Liquor			Average per man		
	Follows	Private	Public	Follows	Private	Public	Follows	Private	Public	Follows	Private	Public
10 th Hussars	673	803	3 7 1/2	10	1	3 1/2	4077	2	4	1	1 1/2	5 1/2
5 th Regiment	1032	510	3 2	135	1	4	3074	3	5	1/2	0 1/2	3
4 th Regiment	577	565	6	97	3	4	902	2	7	3/4	0 1/2	1 1/2
11 th Regiment	640	649	3 1/2	52	2	2	715	2	2	3/4	0 1/2	1 1/2
7 th Regiment	515	387	4 1/2	37	1	4	762	3	4	1/2	0 1/2	3
13 th Regiment	1016	706	2 7/8	183	1	4	3153	1	-	3/4	0 1/2	3
16 th Regiment	1033	674	-	99	-	-	499	3	-	1/2	0 1/2	4
Total	5311	4408	24 1/2	701	1	5 1/2	14408	2	7	2 1/2	0 1/2	3

Return of the Consumption of Spirits, Wines and Malt Liquors in the Hospitals of the undermentioned Regiments in the Bombay Command for the year ending 31st March 1852.

Regiments	Average per man			Consumption for twelve months			Average per man		
	Spirits	Wine	Malt Liquor	Spirits	Wine	Malt Liquor	Spirits	Wine	Malt Liquor
10 th Hussars	63	5	5 1/2	18	2	2	439	2	4
5 th Regiment	66	40	2 2 1/2	301	1	12	1332	2	5
4 th Regiment	57	9	3 1 1/2	22	3	2 1/2	223	4	2
11 th Regiment	28	-	3 5	21	3	5 1/2	356	3	2
7 th Regiment	45	4	5 1/2	173	2	3 1/2	207	-	0 1/2
13 th Regiment	51	5	5 1 1/2	322	-	4	524	4	2
16 th Regiment	62	7	-	118	4	5	366	2	5
Total	339	81	2 2	1108	3	68	3008	4	16

At all the military stations the men have the advantage of a library, and a liberal supply of well selected books is provided by government for their instruction and amusement. At nearly all the posts Racket Courts have been erected, and the men amuse themselves with quarts, Cricket, and long bowls in addition to Rackets.

In all the Barracks means of ablution are provided for the men, but in some it is more complete than in others, and at two or three of the posts plunge baths have been built for their accommodation, and are supplied with water at considerable expense by the labor of bullocks. This subject has lately been under the consideration of Government and means are being taken to remedy any defects that may exist with a liberality that is truly commendable.

The average strength of the Queen's troops serving in this Presidency during the last year has been 8793.

Para 6
Average strength
of the Force &c

Three Hundred and twenty Recruits have joined from England, and one Hundred and Eighty six Invalids have been sent home either for change of climate, or discharge from the service.

No other changes have taken place in the composition of the force.

The following Table N^o 4, will show the principal classes of Diseases that have prevailed in the different Regiments at the several military posts occupied by Queen's Troops during the year: and table N^o 5, copied from the Regimental Sanitary

Para 7. Remarks
on the principal
classes of Diseases
by which sickness
and mortality have
been occasioned.

Reports, will exhibit the different periods of the year at which particular classes of diseases were most prevalent.

Classes of Diseases	1854		1855		1856		1857		1858		1859		1860		1861		1862		1863		1864		1865		1866		1867		1868		1869		1870	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Fever	61	6	47	4	166	1	24	7	78	1	63	2	390	10	412	1	2320	32	2280	24														
Eruptive Fevers	-	-	-	-	-	-	-	-	-	-	2	1	-	-	2	1	6	2	1	-														
Diseases of the Throat	4	1	32	1	23	1	14	1	8	-	10	1	51	6	22	2	173	13	177	8														
— of the Lungs	9	3	77	7	62	1	19	-	14	2	11	2	97	6	46	-	462	21	650	10														
— of the Heart	9	-	4	1	13	-	3	-	-	-	2	1	18	1	4	1	57	4	71	-														
— of the Liver	38	-	162	6	22	-	46	-	21	-	16	3	40	-	67	-	574	9	495	14														
— of the Stomach & Bowels	285	4	266	9	92	3	110	2	137	1	668	1	397	13	394	4	2178	44	1746	65														
Cholera Epidemic	-	-	-	-	10	12	5	3	-	-	1	1	45	31	3	1	74	48	51	17														
Dysentery	4	-	2	1	4	1	2	-	-	-	2	2	8	1	1	-	27	5	28	4														
Pharyngitis	89	-	103	1	27	-	28	-	21	-	63	-	105	1	264	1	751	3	779	-														
General Complaints	135	-	272	2	108	-	142	-	21	-	49	-	74	-	204	-	1078	2	1331	3														
Phlegmon & Abscesses	113	-	107	-	50	-	36	-	40	-	53	-	95	-	89	-	667	-	603	1														
Wounds & Injuries	121	-	39	-	43	-	24	-	25	-	102	-	48	-	81	-	400	-	418	2														
Scalds	1	-	-	-	3	-	-	-	1	-	4	-	2	-	-	-	11	-	5	-														
Diseases of the Eye	18	-	32	-	45	-	13	-	12	-	13	-	49	-	33	-	320	-	357	-														
— of the Ear	4	-	3	-	2	-	1	-	5	-	7	-	9	-	8	-	40	-	21	-														
All other Complaints	41	1	103	1	57	2	30	1	32	2	22	-	10	-	121	-	459	7	573	4														
Total	663	15	1766	33	834	21	764	14	610	6	785	21	1022	69	1651	11	9528	190	9180	160														

N^o 4.

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Table No. 5. Showing the admissions, and Deaths by months in the whole Presidency copied from No. 2. Sanitary Report.

Months	Fever		Disease of the Lungs		Disease of the Liver		Disease of the Stomach & Bowels		Disease of the Brain		All other Diseases		Total	
	Adm.	Deaths	Adm.	Deaths	Adm.	Deaths	Adm.	Deaths	Adm.	Deaths	Adm.	Deaths	Adm.	Deaths
April	156	1	40	1	38	1	153	9	10	1	313	4	712	15
May	143	1	31	1	53	2	213	31	12	4	303	1	753	29
June	140	1	25	2	43	1	256	15	19	1	333	1	817	20
July	146	4	11	1	53	2	229	10	15	2	360	1	898	19
August	181	5	45	1	57	1	224	6	17	1	574	4	925	17
September	299	3	40	1	24	1	189	7	17	1	327	2	896	13
October	312	8	34	4	43	1	134	5	20	1	234	1	827	19
November	314	4	39	5	34	1	170	5	15	2	277	2	852	19
December	195	4	45	2	27	1	182	1	9	1	281	2	721	10
January	124	1	45	1	30	3	161	6	7	1	359	2	729	13
February	127	1	41	1	45	1	187	3	9	1	323	2	697	6
March	132	1	31	3	54	1	181	4	21	1	315	2	714	10
Total	2320	32	452	21	574	9	2257	92	173	13	3029	23	9028	198

By the foregoing Return No. 4 it will be seen that Fevers - affections of the Stomach and Bowels, and Venereal complaints have been the most prevalent diseases during the past year, and that Fevers, Disease of the Brain - Diseases of the Lungs, and affections of the Stomach and Bowels have been the most fatal. By way of facilitating contrast, and reference a column has been added to the Return to show the admissions and deaths last year, and by it, it will be seen that the same classes of diseases which have been most prevalent and fatal this year were the same during the last. The only difference is that Hepatic complaints appear to have been somewhat more fatal last year than they have proved during the present. Spasmodic Cholera prevailed in an Epidemic form in the 6th and 68th Regiments at Meerut during the present year, which has created an excess of mortality.

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mortality this year under the head of affections of the Stomach and Bowels, and if we deduct this the mortality of the two years will be precisely similar.

Fever, which are at all times, and in all commands a numerous class of diseases, have prevailed at every station in the Presidency with the exception of Aden, and Solaba where the admissions in the 78th Highlanders have been comparatively few, and the mortality small.

The following are the types of fever that have been admitted during the year—

Intermittent Fevers..... 1114 admissions..... 4 died

Remittent F.^r..... 573 19.....

Common Continued F.^r..... 633..... 9.....

Total 2320

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On reference to Table N^o 5. it will be observed that Fevers were most prevalent and fatal during the autumnal months, at all the posts, commencing with Common Continued, and Remittent forms at the close of the monsoon, and terminating with those of an Intermittent type as the chilly N.E. land winds began to blow over a vast extent of country previously saturated with moisture and covered with rank vegetation in every stage of growth and decay. Mr. Thorne, my predecessor, I notice is of opinion that atmospheric variation of temperature alone is sufficient to produce periodic fever, and quotes the garrison of Secra in confirmation of his theory—Decra it is true has an extensive sandy waste to the Northward of it, but between it and the foot of the mountains to the Eastward there is an extensive tract of country covered with dense vegetation, and it is partly from this quarter that the N.E. monsoon blows. Besides during the prevalence of the cold winds it has been observed by Dr. Sumsley that those men who were most affected by it, and who were most obnoxious to attacks of

Intermittent

Intermittent and Remittent fever - were those who had previously served in Scinde and had been four or five years in India - very few of the recruits, or men recently arrived from England being attacked by it. I must own my faith in the malarious origin of Periodic fever is not at all shaken by what Mr. Thom has advanced. Nor do I think Dr. Domenichetti's opinion of the origin of Fever at Hyderabad in Scinde deserves the severe stricture that was passed on it by Mr. Thom - at least the result of the present year's experience appears to bear Dr. Domenichetti out. And if we take the following description of Deesa itself as given by S. R. Brown of the Artillery Company's service, in explanation of an outbreak of fever in his Corp, the European Horse Artillery, we shall find that the local sources of malaria are not wanting even in that arid spot itself. Dr. Brown in his remarks on the diseases treated in the Artillery Hospital at Deesa during the months of August - September. October. November and December 1834, says "Before entering on our immediate object it may be well to premise that the Deesa Cantonment stands on the left bank of the Rungp river, the bed of which is about 300 yards in breadth, and during the rains generally filled from bank to bank."

"In the dry season, however, tho' the stream is perennial, it is shallow, sluggish, and confined to a narrow channel, leaving the soil of its ill defined margin saturated with moisture and covered with a rank species of reedy vegetation."

The sources of malarial exhalation are ample enough at Hyderabad in Scinde; for in addition to any rain that may fall during the monsoon months, and in June and July this year the quantity that fell was unusually large, the Indus which begins to rise in March from the melting of

of the snow in the high mountain ranges where the river has its Source, continues to do so during the months of April, May, and the early part of June, when it generally overflows its banks, and inundates the low country bordering on it to a considerable extent; as the river recedes an immense extent of marshy ground is exposed to the powerful rays of the sun, and exhalations are given out that prove very injurious to the health of those who are exposed to them. The new Barracks at Hyderabad are distant from the river about three miles. They are built on a slight eminence which runs off at right angles from the high ground on which the Fort, and native town stand, and when the Indus overflows its banks the low ground, to the foot of the eminence on which the barracks stand is all under water; and as the inundation recedes at the fall of the year cases of Remittent Fever make their appearance, and it has been noticed that out of the two pavilions nearest to the inundation the greatest number - the worst, and most fatal cases of fever always take place. During the present year the wing of the 64th Regiment quartered at Hyderabad admitted 257 Cases of Remittent Fever of which seven died. Whereas in the other wing which was quartered at Kurrachee only 81 Cases were admitted into Hospital, and one died. The 83rd Regiment, however, quartered in the same cantonment, admitted 323 Cases of Intermitent - 15 Remittent, and 156 of Continued Fevers and of these two cases of Intermitent - five of Remittent, and three of Common Continued fever proved fatal. The Sources of Malaria, as I shall have occasion to mention when I come to speak of Epidemic Cholera, are not wanting at Kurrachee - and are quite sufficient to account for Fever both of the Continued and Periodic kind. The common continued may be traced to the filth of the neighbourhood of the native Town, and the

the Periodic to the total channels and extent of low land in the delta of the Indus which is inundated during the rise of the river. To these prolific sources of disease, which extend to within a few miles of Surruachie, may fairly, I think, be ascribed the appearance of periodic fever at that port when the wind blows from that quarter.

At Deesa the 8th Foot admitted 497 cases of fever during the year of which number 345 were cases of Inter-mittent - 18 Remittent and 134 slight attacks of Ephemeral fever. In 18 cases the disease assumed a typhoid Remittent form and out of this number the four casualties which occurred took place. The periodic form of fever began to prevail in September and October when the N.E. wind commenced after the monsoon, and chiefly attacked, as I have mentioned before, the men who had been some time in India.

The 10th Stray at Surruachie, out of an average strength of 678 had 418 admissions from Fever: of these 206 were cases of Inter-mittent - 13 Remittent and 199 Common Continued form. One case of Remittent, and five of Common Continued fever proved fatal.

At Poona, a port, Mr. Thom states nearly exempt from Periodic Fever. The 86th Regiment admitted 106 cases of Inter-mittent - 106 of Remittent, and 121 of Common Continued Fever during the year. Of which only one case of Remittent fever proved fatal. This certainly proves the mildness of Febrile attacks at Poona, and the Regiment's previous service in France may have had some influence on the number of attacks of periodic fever during the year.

Diseases of the Surge.

	Admitted	Died
Pneumonia.....	22	1
Pleuritis.....	7	1
Perniplysis.....	4	1
Phthisis Pulmonalis.....	58	13
Catarrhus Vesiculae.....	50	2
..... Chronicus.....	75	2
Distensa Ventr: Convulsionum.....	1	1
Erysipelas Continua.....	8	2
Total	402	21

Diseases of the Lungs bear a near approximation, both as to frequency and fatality, this year to the last. In the 75th Highlanders at Solah and when the admissions have been fewest, but the mortality greatest to the number admitted - four deaths having taken place out of 25 admissions. In the 10th Hussars at Mhow 9 were admitted, and 3 died: - in the 8th at Deesa 79 were admitted and 7 died: - in the 64th at Murrachee, and 10th at Secunderabad 81 were admitted, and 1 died: in the 83rd at Murrachee 79 were admitted and 6 died; and in the 16th at Poonah 74 were admitted but none died.

The success in Pneumonia is something remarkable - 22 cases having been treated without a single casualty, which says much either for the judgment of the medical officers or the mildness of the disease, for it is not always that the results are so favorable in the treatment of this serious complaint.

Diseases of the Brain

	Admitted	Died
Phrenitis.....	1	1
Cephalalgia.....	42	.
Ictus Solis.....	3	.
Apoplexia.....	15	9
Paralysis.....	23	1
Mania.....	15	.
Hemiplegia.....	2	.
Delirium Tremens.....	44	2
Epilepsy.....	23	.
Vertigo.....	1	.
Neuralgia.....	4	.
Total.....	173	13

Diseases of the Brain have been more numerous this year than they were during the last, and the greatest proportion has taken place in the 64th and 83rd Regiments in Secunderabad.

In the 64th twenty six cases of Delirium Tremens were admitted, of which two proved fatal - 5 cases of Cephalalgia - 1 of Ictus Solis - 2 of Epilepsy - 3 of Paralysis, and

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and four of Anemia were also admitted. The Cases of Anemia M. Corp., the Medical Officer in charge, says were all the effects of drinkings, and two of them required to be sent to England as Invalids.

In the 83rd ten cases of Apoplexy were admitted of which five died. All the attacks, Surgeon Clark states, took place in men of intemperate habits, and were brought on by imprudent exposure to the sun's rays. Eleven cases of Paralysis were treated - nine successfully with Strichnia, and Strychnia, and two are still under cure. Six cases of Epilepsy occurred, five returned to their duty, and one was sent to England as an Invalid. The cases of Anemia were under treatment, the greater part of them re-admissions. Two were sent to England as Invalids, and a third is to be forwarded to the Insane Asylum at Colaba.

At Eden D. McTinnon of the 78th Highlanders states that the climate, and monotony of the place are apt to depress the men's spirits and produce melancholy. The men's health, he says is generally deteriorated, and a Cachectic state, resembling Sand Turvy, generated. altho' the sick list has at no time been heavy, and the amount of mortality is very low indeed. Since February last each Soldier has been served with one gallon a day of purer water for drinking, than that which was formerly supplied to them, and this is considered a great boon, the effects of which I have no doubt will prove beneficial to their health, for according to Chemical Analysis made by the professor of Chemistry in the Grant Medical College here, that which was formerly used contained so much saline matter, as to render it in a measure unfit for domestic purposes.

Diseases of the Liver and Spleen

	Admitted	Died
Hepatitis Acute.....	128	1
..... Chronic.....	334	7
Icterus.....	42	1
Splenitis.....	60	1
Total.....	564	9

Appetition

Affections of the Liver and Spleen have been most prevalent and fatal in the 5th Regiment at Seca, one of the driest stations in the Presidency, and in the 78th Highlanders at Colaba one of the wettest. Next to these comes the 64th Regt at Kurrachee another sea side but dry station, and then the 86th Regiment at Poona an inland and comparatively cool place.

Dropsical

	Admitted	Died
Anasarca.....	21	1
Hydrothorax.....	1	0
Hæmaturia.....	5	4
Total.....	27	5

The admissions under this head have not been numerous, but from the nature of the affection, the mortality, as might be expected, has been comparatively great.

Affections of the Stomach & Bowels

	Admitted	Died
Peritonitis.....	2	0
Gastritis.....	10	1
Enteritis.....	1	0
Hæmaturia.....	2	0
Dysentery Acute.....	238	15
..... Chronic.....	201	22
Dyspepsia.....	667	1
Colic.....	120	1
Diarrhoea.....	825	4
Obstipation.....	110	0
Total.....	2176	44
Cholera Spasmodica.....	74	48
Total.....	2250	92

During the present year there has been an increase of admissions under this class of diseases, but if we exclude Epidemic Cholera, the mortality has been less.

less than it was last year. The number of cases of *Dyspepsia* admitted, particularly in the 75th Highlanders at Calaba; and the 86th at Pona, has been very great, and may I think, with justice, be ascribed to the habits of the men. The 10th Hussars at Mierke, - the 9th Regiment at Deesa, a post generally supposed to enjoy an inviolable immunity from diseases of the dyspeptic viscera, and the 64th and 83rd in Seinde have all had their due share of admissions and deaths under this head of diseases. Cholera in an Epidemic form broke out in the 64th and 83rd Regiments in Seinde, and will be noticed under its proper head.

Rheumatic Affections.

	Admitted	Died
Rheumatism Acute....	249	"
..... Chronic....	470	3
Limbago.....	20	"
Odontalgia.....	7	"
Arthritis.....	5	1
Total....	751	3

Rheumatic attacks have been very common in the 86th Regt at Pona, - in the 8th Regiment at Deesa, and in the 83rd Regiment at Murrachee. - Three deaths have taken place, two from Chronic Rheumatism, one in the 8th, and another in the 86th and one from Arthritis in the 83rd Regiment.

Para 8.
Epidemic
Diseases

Spasmodic Cholera made its appearance in an Epidemic, and destructive form in the native towns of Hyderabad, and Murrachee in Seinde in April last, and soon extended to the military cantonments at these places. The weather which preceded the outbreak of the Epidemic was close and sultry, and it was noticed that a heavy fall of rain which took place in July and at the beginning of August arrested its progress for nearly six weeks. In the 64th Regiment 23 men were attacked and 15 died; 9 women were attacked and six died, and of nine children who were attacked.

attacked five died.

In the 83^d Regiment the attacks were rather more numerous, but the mortality proved nearly the same, for out of 45 cases which occurred 31 proved fatal.

The plan of treatment pursued in both Regiments was nearly the same and consisted in giving a ʒi dose of Calomel on admission followed by 10 grain doses every two hours until the vomiting ceased. In the 82^d Opium was combined with the Calomel, and stimulants given, but in the 83^d the Calomel was given alone, and the patient allowed, or rather encouraged to take soda water, and drink as much plain water as he wished. I cannot say that the result of the practice in either regiment has been such as to recommend it for general adoption.

During the prevalence of the Epidemic it was observed that a party of Convalescents of the 60th who were encamped at Clifton, about two miles from the Barracks, entirely escaped, and two Companies of the 83^d which had suffered most from the disease were removed to some Puddles on a slight eminence formerly occupied by the 60th Rifles, and only one case occurred after their removal. Three other Companies were encamped at Ghuznee Bunder, about four miles from Camp on the sea shore. Four cases were sent to hospital the day following their removal and then the disease entirely disappeared. This looks as if the disease had a local origin and was not entirely dependent on the hot moist condition of the atmosphere as has been stated. That certain conditions of the atmosphere favor the generation of morbidic miasms is without dispute, and when once they are eliminated, the atmosphere proves a ready means of disseminating them equally true. But that moist air alone, without any such contamination is capable of producing a disease so deadly as Cholera has always proved I am not prepared to say. The disease in the 64th and 83^d at Murrachee made its appearance during one of the hottest and driest months of the year.

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it was arrested for six weeks when the ground became saturated with moisture, and by removing the men a short distance from its focus - too short certainly to suppose ^{that} any thing ^{could} have been effected by mere change of air, it entirely disappeared. To the N.W. of the Barracks and Pundalls at Narranbulla there is a ravine into which, until lately the whole of the filth and sweepings of the Bazaar and Cantonment were thrown, and it was noticed both on this and former occasions that Cholera generally made its appearance, and proved most fatal to the inmates of the Barracks and Pundalls nearest to it.

This deposit for filth has now very properly been abolished by the Executive Engineer, Captain Filly, a zealous and intelligent man, who proposes to consume by fire the refuse of the camp and Bazaar, in place of depositing it in any new locality, which I think an admirable plan as the hills for that purpose can be erected in such localities as to preclude the possibility of their ever proving a nuisance ^{to them} to the garrison or inhabitants.

The native town, distant about a mile and a half from the Cantonment, is a crowded filthy place surrounded by low ground that is overflowed at high water, but when the tide recedes a stratum of mud and filth is left to be acted on by the powerful rays of the sun, which must at all times prove a fruitful source of disease. Until very recently the natives had no privies, and were in the habit of obeying the calls of nature in every direction so that the purlieus of the native town and Cantonment were one scene of filth and abomination. When the place was so severely scourged by Cholera in 1846 the attention of the authorities was drawn to this disgusting nuisance, and since then places have been enclosed and set apart for such purposes, and the camp police are active in preventing any infringement of the order.

The

The annexed tables 6 and 7 exhibit the comparative effects of age, and length of service in the command, and as the Ratio per cent of admissions and deaths have been calculated and exhibited in appropriate columns it is not necessary to enter on any further detail on this subject.

Table 6. Sickness and Mortality according to age.

Age	Strength	Admitted	Died	Ratio per cent of ad- missions to strength of each class	Ratio per cent of deaths to strength of each class
Under 18 Years	84	100	1	156. 25	0. 0
From 18 to 20.	675	596	8	88. 39	1. 12
— 21 to 22.	905	1436	26	157. 66	2. 87
— 23 to 25.	1512	2359	53	156. 01	3. 53
— 26 to 30.	1590	3177	59	199. 01	3. 71
— 31 to 35.	839	1273	39	151. 72	3. 45
— 36 to 40.	190	548	11	288. 42	5. 79
— 41 to 45.	16	49	4	306. 25	25. 0
— 46 to 50.	2	—	—	0. 0	0. 0

Para 9.
Influence of age, and length of residence in the climate, in the production of disease.

Table 6.

Table 7. Sickness and mortality according to length of residence in the Command.

Period of Residence	Strength of each class	Admissions of each class	Deaths of each class	Ratio per cent of ad- missions to strength	Ratio per cent of deaths to strength
Under 1 Year	320	402	3	157. 62	0. 93
From 1 to 2.	190	272	9	157. 37	4. 54
— 2 to 3.	1975	3288	106	166. 48	5. 36
— 3 to 4.	199	429	6	215. 57	3. 01
— 4 to 5.	231	541	11	234. 20	4. 76
— 5 to 6.	1421	2684	20	188. 88	1. 97
— 6 to 7.	27	61	—	226. 0	0. 0
Above 7.	1422	1701	27	125. 24	1. 89

Salted Provisions are not issued to the Troops in this Residence, so that affections of the Stomach and Bowels cannot possibly have been either excited, or aggravated by that cause.

Smack,

Snake, & Fear, has been a much more active agent, than called for, in exciting disease of the abdominal organs, and to its baneful effects many of these complaints may be fairly ascribed.

Para 10.
Vaccination,
and its effects
as regards
small pox,
prevalence of
ocular, and
Venereal disease
and whether
mercury has
been used in
the treatment
of the latter.

Vaccination is regularly kept up in all the Regiments, and as there is a public vaccine Institution kept up in every part of the Presidency at the expense of Government no difficulty is at any time experienced in obtaining lymph.

Ocular - Disease, beyond cases of simple inflammation of the Conjunctiva, is rare in this command, and nothing in the shape of Epidemic Purulent Ophthalmia has prevailed in any Regiment during the past year.

With the exception of the 78th Highlanders at Colaba and Aden - Venereal complaints have prevailed extensively at every Station in the Command - no fewer than 1078 affectional of that nature having been admitted into Hospital during the year - two of which cases of Cachexia Syphilitica, having proved fatal. - The primary disease is seldom of an aggravated form, and mercury is not generally required in its cure. Surgeon-Rep of the 10th Hussars, however states that from being a decided nonmercurialist - experience of the disease in this country has induced him to change his opinion, and he is now a mercurialist, giving the remedy in nearly all his cases. Secondary Syphilis is very common, and very intractable in this climate.

Para 11.
Selected
Historical
of
interesting cases.

Not having had any cases under my own immediate care since I came to India I must, refer to the Regimental Medical Officers' Reports where some interesting details will be found. Amongst the rest one of lichenism, and another of Coccarian section in the 86th Regiment.

Para 12.
History of
Pulmonary
disease -

To this Report is appended a Nominal Return of all cases of History Pulmonalis, that have been examined during the year, made out agreeably to the form laid down at page 64 of the Regt^l Regulations. - Signed John Stalk M.D. page 107
Dona 10th June 1852

