SANITARY REPORT OF THE EUROPEAN FEMALE ORPHAN ASYLUM FOR THE PAST SIX YEARS, COMMENCING JANUARY, 1863.

C By Joseph Fayrer, m. d., c. s. i.
During the past six years, the monthly average of each year of the number of girls in the school has been, in round nom-bens-

In | $1863-68$ |
| ---: |
| $1864-70$ |
| $1865-67$ |
| $1866-66$ |
| $1867-59$ |
| $1868-60$ |



The ages vary from one to eighteen years, the great proportion being between the ages of 5 and 16 .

The sanitary history of this Institution is as gratifying as it has been during previous years, and is not less remarkable for the absence of disease, thai a for the generally vigorous state of health enjoyed by the inmates.

The abstracts of admission into hospital show that there has been great immunity from epidemic disease of any severity, and the very small mortality, as well as the small amount of sickness, prove that the European child under proper hygienic
conditions, and careful physical trailing, may live and thrive in the plains of Berigal alinost as well as in its native country.

It is not merely in the absence of any serious disease and the low death-rate that this is manifested, but in the vigorous healthy appearance of the children generally.

This was remarkably noticeable at the last yearly distribution of prizes, when the girls were assembled for the purpose, and it is no exaggeration to say that their appearance ou that occasion would have borne favorable contrast with that of the girls of any similar Institution in Europe.

For this very satisfactory state of matters, the thauks of all interested in the Institution are due to the very careful and judicious managemeut of the Ladies Committee, who have supervised the Institution, and especially to the Lady Superirtendents who have under their directions so vigilantly watched over the moral, mental, and physical education of their charges. It is impossible too highly to estimate the advantages of such management, and I am glal to have this opportunity of recording iny impressions on the sulyinct and of declaring how much the high state of efficiency of the school, as well as the continued good health of its inmates, is aue to the unwearied exertions and arlmirable adminisiration of the past and present Lady Superintendents.

There are several points of interest in the sauitary history of this school that might be considered, but I slaall only advert to those which are most appropriate to this brief report, and which appear most interesting to those to whom it is addressed, the friends and guardians of the children, and the supporters of the school.

And first I would remark on the absence of any sovere form of epidemic disease. In looking over the monthly ahstracts of admissions into hospital, I find that there has not been a single case of cholera; and that the only death from dyscutery, which is the disease peculianly to be dreaded in Calcutta, was that of-aged 5 years, which occurred in 1863, and this was rather a case of dysenteric diarrhळea in a maturally delicite child.

With seference to the class of disorders peculiar to early female life, I may say on this head that nothing could be mire favourable, and that although there be certain indications of the influence of climate in either accelerating or modifying the usual functions, the state of health of the girls is, in this respect, most satisfactory.

The disease returned as measles was a rubenloid fever of a mild form, slightly contagious, shewing little tendency to spread which has ocenrre: from time to time, and has not been followed in any case by those grave sequelæ that so frequently result from measles in Europe.

Two cases of modified sm:ll-pox only are recoriled, and there has never been any tendency in the disease to spread.

The children have all been protected by vaccination, which has succeeder admirably in all upon whom it had not previously becu tried.
$\Lambda$ few cases of genuine typhoid or enteric fever have occurred, - one of which proverl fatal iul 1868, the case of -aged 5. The other forms of fever have hern of the simple continued form, or mith manifestations of the influence of malaria.

The same may be said of the cases of convulsions, a few of which have occurred.

Hooping Cough has been altogether absent.
A few cases of skin disease, but those of a simple and tractable kind, have occurred.

As might be expected among so large a number of children, strumous disease has not been altogether absent, and one death from pyæmia in the Medical College hospital after amputation of the thigh, the other thigh having been previously amputated a year before, for extensive disease of the knee joint; and another from marasmus, the result of strumous disease of the mesenteric glands, have been recorded.

Of acute inflammatory disease, whether of the head, chest, or abdomen, there has beeu alniost none.

Diseases of the liver or spleen, whether from malaria or other causes, have been also singularly few, if not altogether absent.

Pulmonary and Bronchial complaints have heen very few and slight, with the exception of one case of capillary bronchitis with atalectasis in a child aged It months, that came in ill and died a week after admission, and a few slight catarrlaal attacks involving the bronchial tubes, none are recorded. Indeed the mildness of disease, and the absence of those forms of it, with few exceptions, that characterize the Indian climate, has been remarkable. The number of children under 2 years of age has been small, and therefore it is not to be expected that the diseases of first dentition
slould occupy a marked place; indeed they have been almost altogether absent. The cases of convulsions recorded were due morc probably to either centric irritation, or the influence of malaria on the nerve centres. But the evidences of malaria have been, on the whole I am bound to say, very slight, as may he readily seen in the fresh color and red lips of the children.

I would here remark in proof of the improved sanitary condition of the girls, that lateral spinal curvature, of which ten years ago there were several cases, has now disappeared from the school.

There can be no doubt that the very satisfactory state of health enjoyed by these children is mainly due to the excellent hygienic arrangements, and the moral as well as physical discipline, under which they live.

They inhabit a well-built, ventilated, and commodious house, surrounded by a large open space of garden or ground, in which they find amusement and healthy recreation in gardening, or play in the open air. The nature of their occupations is such as to conduce to their moral, alike witb their physical, well-being. 'They have sufficient mental labor to develop without fatiguing their intellects, and of a character suited to the sphere of life in which they are intended to live. With this is combined methodic occupation of a fitting character, regular hours, a good but plain and nutritious diet; and all that conld teml to injure the health from constant or overwork of iny special kind, is strictly avoided.

The following statement of their daily occupations, diet, and recreation by the Lady Superintendent explains how
the time is passed, and it is a system that miglit well be followed by other educational establishments here and elsewhere.

The conditions of a healthy mind in a healthy body, are here all existent, and the results shew how materially a just combination of mental and physical training will, when supported by example in those whose duty it is to teach, conduce even in the climate of Bengal, to ensure a high standard of moral and physical health.

There are some points upon which I would note, that if the means of the Institution admitted, improvements might be mucle. Increased sleeping accommodation is the most important, for at present they are certainly sumewhat overcrowded ; and were it not for the greatest attention being paid to the ventilation of the dormitories, this crowding would produce its usual effects.

The verandah in the front of the house should also be covered in with sun-shades, and if possible a covered playground should be provided for the children for exercise and play in the hot weather. These, however important, I do not insist on as absolutely essential at present, but in the event of the acquisition of the means, through the liberality of any of the admirers of this truly valuable Institution, I do not think the money could be applied to a better purpose.

In reference to the question of growth and development. of the European child brought up and edneated in Bengal,

I may give the following illustration from the average measurements of five girls at 16 years of age which was-

> Height, $5 \cdot 4 \frac{1}{2}$ inches
> Weight, 7 stone 11 lbs.
> Girth of chest, $34 \cdot 7$ inches.
> Girth of Hip, $35 \cdot 7$ iuches.

A stature and weight which would probably not be much exceeded in Europe.

Appended are the Monthly Abstracts of Disease for the past six years, and the Yearly Abstract of the numbers treated, also the Lady Superintendent's Memo. of the Diet and Occupations of the children.
MONTHLY ABSTRACT FOR JANUARY, 1863.

APRIL, 1563.

JUNE, 1863.

SEPTEMBER, 1863.

NOVEMBER, 1863.

FEBRUARY, 1864.

MARCH, 1864.

| Herpes | 9 | 13 | 22 | 12 | 0 | 10 | 22 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cynanche | 0 | 1 | 1 | 1 | 0 | 0 | 1 |
| 1) iarrhœa | 0 | 2 | 2 | 2 | 0 | 0 | 2 |
| Dyspepsia | $1)$ | 1 | 1 | 1 | 0 | 0 | 0 |
| Febris, c. c. | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| Cephalalgia | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| Total in Month... | 9 | 19 | 28 | 18 | 0 | 10 | 28 |

APRIL, 1864

JULY, 186\%.

NOVEMBER, 1864.

FEBRUARY, 1365.

( 18 )

JULY, 1865.

OCTOBER, 1865.

DECEMBER, 1865.

MARCH, 1866.

JUNE, 1866.

SEPTEMBER, 1866.

DECEMBER, 1866.

APRIL, 1867.

JULY, 1867.

OCTOBER, 1867.

JANUARY, 1868.

| Diseases. |  |  |  |  | $\stackrel{\text { ® }}{\sim}$ |  | 辰 | Remarks. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Scabies | 1 | 1 | 2 | 2 | () | 0 | 2 |  |
| Febris | 0 | 1 | 1 | 1 | 0 | 0 | 1 |  |
| Cynanche | 0 | 2 | 2 | 2 | 0 | 0 | 2 |  |
| Adenitis | 0 | 1 | 1 | 0 | 0 | 1 | 1 |  |
| Total in Month | 1 | 5 | $\begin{gathered} 6 \\ \mathrm{~F} \end{gathered}$ | $\begin{gathered} 5 \\ B K U \end{gathered}$ | $\begin{gathered} 0 \\ \mathrm{ARY} \end{gathered}$ | $\begin{aligned} & 1 \\ & 18 \end{aligned}$ | 6 |  |
| Adenitis | 1 | 0 | 1 | 1 | 0 | 0 | 1 |  |
| Febris | 0 | 2 | 2 | 2 | 0 | 0 | 2 |  |
| Diarrhœa | 0 | 1 | 1 | 0 | 0 | 1 | 1 |  |
| Total in Month | 1 | 3 | 4 | 3 | 0 | 1 | 4 |  |
|  |  |  |  | MAR |  |  |  |  |
| Diarrhœa | 1 | 1 | 2 | 2 | 0 | 0 | 2 |  |
| Febris | 0 | 3 | 3 | 3 | 0 | 0 | 3 |  |
| Furunculi | 0 | 1 | $!$ | 1 | 0 | 0 | 1 |  |
| Catarrh | 0 | 1 | 1 | 0 | 0 | 1 | 1 |  |
| Total in Month | 1 | 6 | 7 | 6 | 0 | 1 | 7 |  |

APRIL， 1868.

| 坔 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{1} \mathrm{P} 10 \mathrm{~T}$ | － | 61 |  | ร |  | －－－－ | 于 |
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| －por ${ }^{\text {ct }}$ | $\bigcirc$ | 0 | $\mathrm{Fi}$ | $\begin{aligned} & 77 \\ & \sqrt[7]{2} \end{aligned}$ | $\Leftrightarrow \approx$ | 0000 | 0 |
| $\begin{gathered} \text { paino } \\ \text { poöreipos!a } \end{gathered}$ | －1 | © | is | $\begin{aligned} & \text { gu } \\ & \text { U } \\ & \text { U } \end{aligned}$ | $\underset{7}{0}$ | $-\sim 00$ | ก |
| ［ $[370.5$ | © | Q |  | Z |  | －－－－ | \％ |
| －patimupr | $\sim$ | － |  |  |  |  | अ |
| －o̊ututeury | $\checkmark$ | $\square$ |  |  |  | 0000 | 0 |
|  | $\begin{aligned} & \text { 륻 } \\ & \text { స⿹\zh26灬 fin } \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & \vdots \\ & \stackrel{\text { E }}{5} \\ & 0 \\ & \text { E } \\ & \text { E } \\ & \text { E } \\ & \text { E } \end{aligned}$ |


SEPTEMBER, 1868.

DECEMBER, 1868.

| Diseases. |  | $\begin{aligned} & \text { B } \\ & \text { 㤟 } \\ & \text { B } \\ & 4 \end{aligned}$ | $\begin{aligned} & \text { ت̃ } \\ & \stackrel{0}{0} \end{aligned}$ |  | تِ | 宽 | E. | Remarks. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pneumonia | 1 | 0 | 1 | 1 | 0 | 0 | 1 |  |
| Dysenteria ... | 0 | 1 | 1 | 1 | 0 | 0 | 1 |  |
| Total in Month ... | 1 | 1 | 2 | 12 | 0 | 0 | 2 |  |

## ABSTRACT OE SICK FOR THE YEAR 1863.

| Months． | $\begin{aligned} & \text { bo } \\ & \text { 品 } \\ & \text { 品 } \end{aligned}$ |  | $\left\lvert\, \begin{aligned} & \text { 葸 } \\ & \text { n } \end{aligned}\right.$ |  |  |  |  | $\frac{\text { Remarks．}}{\text { Girlsin School }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| January ．．． | 1 | 4 | 5 | 3 | 1 | 1 | 5 |  |
| Fehruary ．．． | 1 | 8 | 9 | 7 | 0 | 2 | 9 |  |
| March ．．． | 2 | 4 | 6 | 5 | 0 | 1 | 6 |  |
| A pril ．．． | 1 | 8 | 9 | 8 | 0 | 1 | 8 |  |
| May ．．． | 0 | 18 | 18 | 18 | 0 | 0 | 18 |  |
| June ．．． | 0 | 3 | 3 | 3 | 0 | 0 | 3 |  |
| July | 0 | 11 | 11 | 11 | 0 | 0 | 11 |  |
| August ．．． | 0 | 5 | 5 | 5 | 0 | 0 | 5 |  |
| September． | 0 | 12 | 12 | 8 | 0 | 4 | 12 |  |
| Octuber ．．． | 4 | 12 | 16 | 14 | 0 | 2 | 16 |  |
| November．． | 2 | 4 | 6 | 4 | 0 | 2 | 6 | 66 |
| December．． | 2 | 2 | 4 | 4 | 0 | 0 | 4 | 70 |
| T．otal ．．． | 13 | 91 | 104 | 90 | 1 | 13 | 104 | 68 Daily arer－ |


| January ．．． | 0 | 3 | 3 | 1 |  |  |  | 37 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| February ．．． | 2 | 17 | 19 | 10 | 0 | 9 | 19 | 71 |
| March ．．． | 9 | 19 | 28 | 18 | 0 | 10 | 28 | 73 |
| A pril ．．． | 10 | 6 | 16 | 14 | 0 | 2 | 16 | 73 |
| May ．．． | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 73 |
| June ．．． | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| July ．．． | 0 | 4 | ＋ | 4 | 0 | 0 | 4 | 70 |
| August ．．． | 0 | 6 |  | 5 | 0 | 1 | 6 | 73 |
| September | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 72 |
| October ．．． | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 73 |
| Novernber | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 74 |
| December．． | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 73 |
| Tutal ．．． | 26 | 56 | 82 | 55 | 0 | 27 | 82 | $5^{8}$ Daily ars |


| 1865. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Montris. |  |  |  |  | $\stackrel{: \stackrel{0}{0}}{\stackrel{\circ}{\circ}}$ |  | $\begin{aligned} & \text { تू } \\ & \stackrel{y}{\circ} \end{aligned}$ | $\frac{\text { Remarks. }}{\text { Girls in School }}$ |
|  |  |  |  |  |  |  |  |  |
| January ... | 1 | 1 | 2 | 0 | 0 | 2 | 2 | 56 |
| February . | 2 | 7 | 9 | 3 | 0 | ${ }^{6}$ | ${ }^{9}$ | 65 |
| March ... | 6 | 5 | 11 | 9 | 0 | 2 | 11 | 66 |
| April ... | , | 10 | 12 | 10 | 0 | 2 | 12 | 66 |
| May ... | 2 | 3 | 5 | 5 | 0 | 0 | . | 67 |
| June ... | 0 | 9 | 9 | 0 | 0 | 9 | 9 | 69 |
| July ... | 9 | 6 | 15 | 14 | 0 | 1 | 1à | 70 |
| August ... | 1 | 11 | 12 | 7 | 0 | 5 | 12 | 69 |
| September. | 5 | 5 | 10 | 10 | 0 | 0 | 10 | 69 |
| Octoher ... | 0 | 9 | 9 | 7 | 0 | 2 | 9 | 70 |
| November.. | , | 7 | 9 | 6 | - | 2 | 9 | 70 |
| December.. | 2 | 6 | 8 | 7 | 1 | 0 | 8 | 69 |
| Total... | 32 | 78 | 111 | 78 | 1 | 31 | 111 | 67 Daily aver- |
|  |  |  |  | 1866 |  |  |  |  |

1866. 

| Janmary ... | No sickness this month. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| February .. | 0 | 3 | 3 | 3 | 0 | 0 | 3 | 63 |
| March ... | 0 | 8 | 8 | 7 | () | 1 | 8 | 63 |
| A pril | 1 | 5 | 6 | 4 | 0 | 2 | 6 | 61 |
| May | 2 | 4 | 6 | 2 | () | 3 | 6 | 61 |
| June | 3 | 3 | 6 | 2 | 0 | 4 | 6 | $6: 3$ |
| July | $\pm$ | 20 | 21 | 22 | 0 | 2 | 24 | (i3 |
| Ausust | $\bigcirc$ | $!6$ | 18 | 1.5 | 0 | 3 | 18 | (3) |
| September. | :3 | 2 | 5 | j) | 0 | 0 | 5 | ¢9 |
| October | () | 8 | 8 | 7 | () | 1 | 8 | (i3) |
| November.. | 1 | 0 | 1 | 0 | () | 1 | 1 | 61 |
| December.. | 1 | 1 | $\because$ | 2 | 0 | 0 | 2 | 61 |
| Total... | 17 | 70 | 87 | 69 | 0 | 17 | 87 | 61 Daily arer- |

1867. 

| Months． |  | $\begin{aligned} & \text { 追 } \\ & \text { 淢 } \\ & \text { 4 } \end{aligned}$ | $\begin{aligned} & \text { స్ } \\ & \text { స్ } \\ & \text { E. } \end{aligned}$ |  | $\stackrel{\text { ® }}{\Xi}$ |  | $\begin{aligned} & \text { 玉 } \\ & \text { E } \\ & \text { E-1 } \end{aligned}$ | Remarks． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | Girls in School． |



| January ．．． | 1 | 5 | 6 | 5 | 0 | 1 | 6 | 55 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| February．．． | 1 | 3 | 4 | 3 | 0 | 1 | 4 | 59 |
| March | $\ldots$ | 1 | 6 | 7 | 6 | 0 | 1 | 7 |

## MEMO. BY LADY SUPERINTENDENT.

## DIET :

Three regular meals in the day and bread early in the moruing.

Breakfast $\frac{1}{2}$ past 9 . Bread and milk.
Diuner $\frac{1}{2}$ past 2. Meat every day for Girls above 12, and three times a week for those under. Dhall and rice, \&c. Fruit three days in the week.

During last year the meat was plainly cooked instead of curried, and I think the Children have benefited by it.

Supper $\frac{1}{2}$ past 7. Bread and milk. The milk is pure-no water with it.

## Habits :

All through the year the children rise at 5 A. M., bathe in cold water, and then take exercise in the compound.

## Occupation :

During the Cold Season, school commences at 7 , and in the Hot Weather, at 6 A. m.

Five hours of regular schoul and one of study (preparing Lessons) through the day.

During the hours of recreation skipping and active play is encouraged, aud, as a rule, the childen are as active and fourd of a good romp as children in England. Iudoor exercise consists of cleaning the house which is all clone by the girls.

Culisthenic exercises every morning.

The following Table shows the ages at which each of twentyseven girls commenced to menstruate. These girls are all of pure European lineage, such being a condition of their admission into the Asylum. It appears that seventeen were born in India, two in Ceylon, six in Europe, one in Australia, and one whose birth-place is not known. The earliest age at which the catamenia appeared was at twelve years and two months in a girl born in India; the latest at sixteen years and four months in the case of a delicate strumous girl who died after amputation in the Medical College hospital of pyæmia. She was also born in India.
The next latest was in a girl born in England in whom it commenced at fifteen years and eight months. Of the seventeen girls born in India the catamenia commenced in two between tivelve and thirteen ; in five between thirteen and fourteen ; in eight between fourteen and fifteen ; in one between fifteen and sixteen ; and in one between sixteen and seventeen.

Of the six born in Europe, the catamenia commenced in one between twelve and thirteen; in one between thirteen and fourteen; in two between fourteen and fifteen; aud in two between fifteen and sixteen.

Of the two born in Ceylon, it commenced in both between thirteen and fourteen. One in Australia, between fifteen and sixteen ; and the one whose birth-place was unknown between twelve and thirteen.

Thus of the whole number-
Four commenced between twelve and thirteen years of age.

| Eight | $"$ | $"$ | thirteen and fourteen | $"$ |
| :--- | :--- | :--- | :--- | :--- |
| Nine | $"$ | $"$ | fourteen and fifteen | $"$ |
| Five | $"$ | $"$ | fifteen and sixteen | $"$ |
| Onl | $"$ | $"$ | sixteen and seventeen | $"$ |
| On |  |  |  |  |

The column of remarks in the Table shows how the functions were performed subsequently.

This is interesting as showing how far birth, residence, or physical and moral training under the most favorable circumstances affect the European female child born and brought up in India.

I have been acquainted with these girls since they were young children, and the impression I have formed, is, that they are more precocious both in physical and mental development than girls of the same age would be in Europe. They are most carefully educated, and, as the Report shows, their physical as well as moral training is most sedulously guarded from aught that could prejudice or injure either. But the stimulating effects of an almost tropical climate assert their influence ; and it is evident that the girl of 16 or 17 is three or four years in advance of a girl of that age in a European climate. It is remarkable how few deviations have occurred from the natural and regular performance in the menstrual functions in these girls. As a rule it occurs regularly and without trouble, and it is most unusual for me to have any complaint made on this score.

In connection, though perhaps remotely with this subject, I would note the occasional occurrence among the girls of a swelling of the lower extremities evidently nearly allied to the elephantoid growth seen in the limbs of the Natives of Bengal-a bucnemia. It is manifestly a steady and pointed enlargement of one leg, mostly about the ankle and leg, but extending slightly up the thigh itself. If there be any change in the condition, it occurs at the menstrual period, when the
limb is somewhat larger than at other times. The swelling is firm, not œedematous and very like elephantiasis, except that it is not attended with either a periodic pain or excitement in the part, but is of very slow and steady growth. One of the frist girls, aged 17, now in the school, is affected by it, and the left ankle is more than an inch greater in circumference than the right, and the swelling gradually extends to the thigh, while at the thigh it is somewhat larger than the other. There is no pain and very little inconvenience, except that which comes from the iucreased size.

I have not as yet succeeded in making any impression on it by medical treatment, and but very slight, only of a temporary nature by bandaging.

These cases, I am happy to say, are exceedingly rare, as during the fourteen years that I have known the school, there have been only two or three : they are very interesting and their pathology requires further investigation,

