STATISTICS
OF
QUEEN CHARLOTTE'S LYING-IN
HOSPITAL.

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A NOTICE having appeared in one of the medical journals for October, 1862, relative to the mortality observed in the lying-in hospitals of London, and in that of Queen Charlotte's Hospital in particular, on my appointment as one of the medical officers to the out-patients of that institution, I, with the consent of Dr. Blakeley Brown and Dr. Mackenzie, the physicians to the in-patients, commenced an examination of the registers, more especially with reference to this subject.

On looking back, I found that the registers had been very carefully kept since the year 1828; prior to 1828 the entries could not be depended on; these, therefore, I have omitted, and have put down in my tables those data only

which may be found recorded ; making them, in fact, but an epitome of the practice of the hospital during the last thirty-six years.

Between the years 1828 and 1863 inclusive 7736 patients were delivered in the hospital (producing 7824 children) ; of these, 3611 were single women, who are admitted on their producing satisfactory proof that it is their first pregnancy ; of the 7736 patients, 202 died, 126, or rather less than two thirds of the whole number, being single women.

A great mortality amongst unmarried women on their passage through the puerperal state has always existed. This may be accounted for by their being ashamed of their position, living in retirement for some months prior to their admission, almost, one might say, in a state of solitary confinement, and wanting the common necessities of life ; being separated from their relations and friends, and dreading lest their situation should be found out (this in itself being a considerable anxiety) and forsaken too often by those who effected their ruin. They perhaps possess, at the best of times, but a poor constitution, and in many cases it is to be feared have an improper recourse to medicines ; they belong also not unfrequently to a better class of society ; they go on hoping against hope till the time of their confinement is close at hand, and then, when the child is born, and there is no escape, overwhelmed with a sense of their own degradation, they sink under an illness from which a married woman would speedily recover.

With regard also to the married patients, many of them, and I refer to the primiparæ, are legally married only within a short time of the termination of their pregnancy ; many, I am told, bring their letters of admission to be registered, having been married but a week or two previously ; and in one case, which fell under my own observation, the applicant came direct from the church at which she was married to the hospital, registered her letter as a married woman, and was admitted in labour within three days. Under these circumstances, though to all intents and purposes single women, though still obliged to be admitted as married

women, very few constitutions will bear the constant anxiety of "hope deferred" for so many months without evincing in some way or other derangement of function; and when is this so likely to be exaggerated as after the exhausting process of parturition? The mortality amongst the married patients would be therefore considerably diminished if it were not for this fact, that so many of them are exposed during the period of gestation to all the same depressing influences as the unmarried patients.

With these preliminary remarks Table I is introduced; it is designed to show the death-rate for each year since 1828. In the last column of the table is put down the number of women delivered at their own homes annually during this period. The total number of women delivered at their own habitations was 10,858; these, with the 7736 women delivered in the hospital, makes an aggregate of 18,594 patients relieved by the hospital.

The deaths, when added together, yield the following results:—Married, 76; single, 126; excess of single over married, 50. Then, with regard to the death-rate observed in the hospital, a per-centage on the total number of patients delivered will be seen in the table to read thus:

Death-rate, married	.	.	.	.	1·84
„ single	.	.	.	.	3·48
Total death-rate	.	.	.	.	2·6

So that the practice of the hospital goes to show that out of every hundred women delivered rather more than two and a half are lost.

From 1828 to 1847 the total death-rate varied from 3·77 to nothing; the three succeeding years, 1848-49-50, show an increased rate, being in 1849 (the year of the cholera) as high as 9·32; from 1851 to 1858 the rate was very low, varying from 1·22 to nil; then, in the three following years, 1859-60-61, it rose considerably, reaching in 1859 as high as 8·12 per cent.; this was in a great measure owing to the increasing number of single women admitted, the mortality amongst whom in these three years was very large.

TABLE I.—*Showing the total number of Patients in each year, with the number of Deaths and the Death-rate.*

Year.	No. of Patients Admitted.			Deaths.			Death Rate.			Patients Delivered at their own homes.
	Married.	Single.	Total.	Marr.	Sing.	Total.	Married.	Single.	Total.	
1828	162	103	265	6	4	10	3·703	3·88	3·77	394
1829	135	86	221	1	5	6	·74	5·81	2·71	379
1830	168	68	236	4	2	6	2·38	2·95	2·54	371
1831	135	72	207	4	...	4	2·96	...	1·93	386
1832	147	70	217	2	...	2	1·36	...	·92	358
1833	95	35	130	...	...	...	...	...	...	334
1834	100	61	161	...	2	2	...	3·27	1·24	286
1835	121	93	214	...	1	1	...	1·07	·46	296
1836	98	71	169	...	2	2	...	2·81	1·18	256
1837	124	91	215	1	1	2	·806	1·09	·93	275
1838	103	99	202	2	3	5	1·94	3·03	2·47	335
1839	108	96	204	2	2	4	1·85	2·08	1·96	327
1840	99	100	199	...	3	3	...	3 ¹	1·5	303
1841	130	88	218	1	2	3	·76	2·27	1·37	331
1842	114	98	212	1	1	2	·87	1·02	·94	329
1843	105	92	197	...	3	3	...	3·26	1·52	306
1844	104	100	204	4	1	5	3·83	1 ¹	2·45	334
¹ 1845	73	71	144	1	...	1	1·37	...	·69	265
1846	90	100	190	2	2	4	2·22	2 ¹	2·1	318
1847	96	71	167	3	2	5	3·12	2·81	2·99	266
1848	108	66	174	8	7	15	7·40	10·60	8·62	284
1849	77	84	161	5	10	15	6·49	11·90	9·32	282
1850	88	71	159	...	8	8	...	12·67	5·03	247
1851	82	98	180	...	...	...	...	...	...	312
1852	73	100	173	1	...	1	1·37	...	·57	211
1853	93	84	177	...	...	...	...	...	...	222
1854	129	85	214	...	...	...	...	...	...	190
1855	95	75	170	1	1	2	1·05	1·33	1·18	199
² 1856	53	35	88	1	...	1	1·88	...	1·13	225
1857	122	123	245	2	1	3	1·64	·81	1·22	236
1858	155	186	341	2	1	3	1·29	·53	·88	230
1859	134	186	320	7	19	26	5·22	10·21	8·12	270
³ 1860	120	136	256	4	14	18	3·33	10·29	7·03	297
1861	160	209	369	3	17	20	1·87	10·13	5·42	350
1862	162	189	351	6	8	14	3·70	4·23	3·92	381
1863	167	219	386	2	4	6	1·19	1·82	1·55	373
Total	4125	3611	7736	76	126	202	1·84	3·48	2·6	10,858

¹ Hospital closed one month for repairs.

² New hospital in course of building.

³ Hospital closed two months for necessary alterations.

TABLE II.—*Showing the total number of Patients in each year at the "Rotundo Hospital," Dublin, with the number of Deaths and the Death-rate.*

Year.	Number of Patients delivered.	Deaths.	Death-rate.
1828	2856	43	1·505
1829	2141	34	1·58
1830	2288	12	·52
1831	2176	12	·55
1832	2242	12	·53
1833	2138	12	·56
1834	2024	34	1·68
1835	1902	34	1·78
1836	1810	36	1·98
1837	1833	24	1·309
1838	2126	45	2·11
1839	1951	25	1·28
1840	1521	26	1·709
1841	2025	23	1·13
1842	2171	21	·96
1843	2188	22	1·005
1844	2176	14	·64
1845	1411	35	2·48
1846	2025	17	·83
1847	1703	47	2·76
1848	1816	35	1·92
1849	2063	38	1·84
1850	1980	15	·75
1851	2070	14	·67
1852	1963	11	·55
1853	1906	17	·89
1854	1943	37	1·90
1855	1060	35	3·30
1856	1600	25	1·56
1857	1509	33	2·18
1858	1084	30	2·76
1859	1389	21	1·51
1860	1404	26	1·85
1861	1135	59	5·19
1862	Not returned.	...	...
1863	"	...	...
Total.....	63,621	924	1·45

The rate, however, is now again decreasing; being in 1862, 3·99; and in the last year, 1·55. I said just now that unmarried women were the cause of the death-rate being so high in certain years; and that this is really so my table shows clearly enough; in one instance only, namely, in 1848, do the married deaths outnumber the single; in 1849 the single were just double the married; in 1850, 8 single and no married woman died; then, again, in 1859, there were the deaths of 19 single to 7 married; in 1860 there were 14 of the former to 4 of the latter; in 1861 there were the deaths of 17 single to only 3 married; these facts show the causes of the high rate of mortality in these six worst years. I need not remark what a much more favorable aspect the death-rate of Queen Charlotte's Hospital would present if its usefulness were restricted to married women.

In another table I have given the death-rate of the Rotundo Hospital at Dublin; and here I must express my obligations to the secretary of that institution for furnishing me with the necessary data. For more readily comparing the relative mortality, I have shown the death-rate annually since 1828 (the year from which the register of Queen Charlotte's Hospital commenced); but as the Rotundo Hospital professes only to admit married women, this death-rate must only be compared with a similar class of patients in Queen Charlotte's Hospital.

In a letter to the 'Lancet' for November 29th, 1862, Dr. Graily Hewitt gives the rate of mortality at the British Lying-in Hospital; he states that for the thirteen years included between 1849 and 1861 there were 1581 deliveries and 11 deaths, being only ·69 per cent. This hospital only admits married women, and those in not larger numbers than about 120 annually; so that, as the editor of the 'Lancet' remarks in a note to the letter, "there is not much scope for the extension of fever."

In the three cases, however, the death-rates stand thus:

Queen Charlotte's Hospital	.	.	.	1·84
Rotundo Hospital	.	.	.	1·45
British Lying-in Hospital	.	.	.	·69

The high death-rate of the Queen Charlotte's Hospital, in my opinion, proceeds in a great measure from a cause that I mentioned at the commencement of this paper, and which I cannot help here repeating, it being a fact of some importance in favour of the hospital; it is, that so many patients come in as married women who have been married only a short time before their confinement, and who have therefore been exposed to all the depressing agencies to which a single woman is exposed during the period of gestation; these patients have hardly a better chance of recovery than the single women who are admitted.

Since the establishment in 1856 of the out-door midwifery department at St. George's Hospital, upwards of 2800 women have been delivered at their own homes, all of them being, according to the rules of the hospital, married. Of the whole of this number 10 died, giving as the rate of mortality ·36 per cent., which, it must be confessed, is very small when compared with 1·84, the rate of mortality at Queen Charlotte's Hospital. Women delivered at their own habitations, as I know by experience, are often living in the greatest filth and poverty, with only one room to accommodate the wants of a whole family, and yet, as will be seen, these patients do infinitely better than those who are removed to a spacious, well-ventilated building, with every comfort and attention that can be devised.

In Table III is shown the "cause of death," arranged according to the frequency of its occurrence; and I may here remark that post-mortem examinations are not the rule at Queen Charlotte's Hospital; they are only performed in cases about which there was any obscurity, or which seemed to call for more minute investigation attending the cause of death. In the table the married patients are divided into primiparæ and multiparæ; the single patients into primiparæ only, for the reason I have given elsewhere.

First on the list comes "puerperal fever," under which

denomination peritonitis, and the other various varieties to which this affection is so prone, must be included. The total number of deaths from this cause is 123, which, being analysed, give to the married primiparæ and multiparæ 41, and to the single patients 82, or three times as many as either of the preceding. The death-rate from this cause reads thus :

Married	99
Single	2·27
Total rate	1·57

TABLE III.—*To show the Cause of Death.*

Disease.	Married.		Single.	Total.
	Multiparæ.	Primiparæ.	Primiparæ.	
Puerperal Fever . . .	17	24	82	123
Puerperal Mania . . .	1	4	11	16
Phthisis	3	4	11	18
Diarrhœa	...	4	6	10
Post-partem Hæmorrhage .	2	1	2	5
Ruptured Uterus . . .	1	1	1	3
Pneumonia	...	...	4	4
Pleurisy	2	...	...	2
Erysipelas	...	1	1	2
Scarlet Fever	...	...	2	2
Measles	...	...	1	1
Disease of the Heart . .	1	...	1	2
Rupture of Aorta . . .	1	...	...	1
Coma following Convulsions .	1	1	1	3
Apoplexy	...	1	2	3
Shock	...	2	...	2
Exhaustion	1	3	1	5
Total	30	46	126	202

TABLE IV.—*To show the causes of Death in each year from 1828 to 1863.*

Year.	Puerperal Fever.	Puerperal Mania.	Pthiasis.	Diarrhoea.	Post-partum Hæmorrhage.	Rupture of Uterus.	Pneumonia.	Pleurisy.	Erysipelas.	Scarlet Fever.	Measles.	Diseased Heart.	Rupture of Aorta.	Coma, following Convulsions.	Apoplexy.	Shock.	Exhaustion.	Total.
1828	9	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	10
1829	3	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	6
1830	4	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	6
1831	2	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	4
1832	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
1833	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1834	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2
1835	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
1836	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
1837	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	2
1838	3	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	5
1839	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	4
1840	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	3
1841	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	3
1842	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2
1843	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
1844	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
1845	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
1846	2	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	4
1847	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
1848	12	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	15
1849	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	15
1850	6	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	8
1851	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1852	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1855	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2
1856	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
1857	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3
1858	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
1859	13	4	2	3	...	...	...	...	...	...	...	1	...	1	...	2	...	26
1860	6	2	4	1	...	...	1	...	2	...	...	...	...	...	1	1	...	18
1861	9	2	4	2	...	1	2	...	...	...	...	...	...	...	...	...	...	20
1862	10	...	1	...	...	...	1	...	...	...	...	...	1	...	...	1	...	14
1863	4	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	6
Total	123	16	18	10	5	3	4	2	2	2	1	2	1	3	3	2	5	202

TABLE V.—*To show the number of Deaths from Puerperal Fever in each month from 1828 to 1863.*

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1828	2	2	2	...	...	1	...	...	...	...	1	1	9
1829	1	...	1	...	...	...	1	...	...	...	...	...	3
1830	...	1	...	1	...	1	...	1	...	...	...	...	4
1831	...	...	...	...	...	...	1	...	1	...	...	...	2
1832	...	...	...	...	...	...	...	...	...	...	...	2	2
1833	...	...	...	...	...	...	...	...	...	...	...	...	...
1834	...	...	...	...	1	...	...	...	...	...	...	...	1
1835	...	...	...	...	...	...	...	...	...	...	1	...	1
1836	...	1	...	...	...	...	...	...	...	...	...	...	1
1837	...	...	...	...	...	...	...	...	...	...	...	...	...
1838	...	...	1	...	1	...	...	...	1	...	...	...	3
1839	...	...	2	...	...	...	...	...	...	...	...	...	2
1840	...	...	...	...	...	...	...	...	...	1	...	...	1
1841	...	...	...	...	...	...	...	...	...	...	...	...	...
1842	...	...	...	...	...	...	...	...	1	...	...	...	1
1843	...	3	...	...	...	...	...	...	...	...	...	...	3
1844	...	...	...	...	...	1	...	...	...	...	1	3	5
1845	...	1	...	...	...	...	...	...	...	...	...	...	1
1846	1	...	...	...	...	...	...	...	...	...	1	...	2
1847	1	...	2	...	1	...	1	...	...	...	...	...	5
1848	2	1	2	...	2	...	2	...	2	1	...	...	12
1849	...	3	4	1	...	...	1	3	...	...	1	1	14
1850	1	...	...	2	...	1	...	...	1	...	1	...	6
1851	...	...	...	...	...	...	...	...	...	...	...	...	...
1852	...	...	...	...	...	...	...	...	...	...	...	...	...
1853	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	...	...	...	...
1855	...	...	...	1	...	...	...	...	...	...	...	...	1
1856	...	...	...	...	...	1	...	...	...	...	...	...	...
1857	...	...	...	...	...	...	...	...	1	...	...	...	1
1858	...	...	...	...	...	...	...	...	...	...	...	...	...
1859	1	1	1	...	1	1	1	...	3	2	2	...	13
1860	1	1	...	...	1	3	...	...	...	...	...	...	6
1861	...	1	2	1	2	...	1	1	...	...	...	1	9
1862	...	1	1	2	2	2	1	...	...	...	...	1	10
1863	...	...	2	...	...	...	1	...	...	...	...	1	4
Total	10	16	20	8	11	11	10	5	10	4	8	10	123

The accompanying Table V, shows in what proportions puerperal fever presented itself in the various months of the year from 1828 to 1863. During eight years, namely, in 1832, '37, '40, '51, '52, '53, '54 and '58, the hospital was free from this scourge of lying-in women.

In 1228, of the 9 deaths, 6 occurred between January and March, 2 to each month; the next case after this happened three months subsequently. It is not my intention to weary the Society with a detailed account of the various dates on which all these fatal cases occurred. I wish to mention those instances only in which any contagion or infection seemed to exist. In December, 1832, there were 2 deaths, the patients being admitted between the 5th and 16th. These two cases were quite isolated. In the middle of March, 1839, there were 2 cases without any apparent exciting cause; these were also quite isolated. In February, 1843, there were 3 deaths, the first of which followed after an instrumental delivery. All these patients were admitted within three days. An interval of fifteen months elapsed before another death occurred.

In November, 1844, there was 1, and in December of the same year there were 3 more cases; in the latter instances the patients were admitted between the 7th and 20th. Between January and July, 1847, there were 5 deaths, 1 occurring in each alternate month, except in March, when there were 2 instances following closely on each other; the first of these was an instrumental delivery. In February and March, 1848, the 3 patients who died were admitted within six days; others also were admitted in the same period, without suffering from the disease; in March the 2 deaths happened within five days of each other, the last death having occurred forty days previously; in May the fatal cases were admitted within five days, and in June on consecutive days; in September, though there were 2 deaths, 1 occurred at the commencement and 1 at the end of the month; there was 1 also in October. After three months' interval no less than 8 cases happened in February, March, and April, 1849. In

February the patients were admitted between the 14th and 26th, and another on the 27th, though this one did not show symptoms of puerperal fever till the following month, March, in which also 3 other cases terminated fatally between the 3rd and 15th. During these months numerous other patients passed safely through the hospital. The next death occurred in July, after an interval of two months, while between the 1st and 5th of August 3 other cases terminated fatally. Of the 2 patients who died in April, 1850, 1 was admitted at the commencement and 1 at the end of the month. In 1859 1 death occurred in each of the early months of the year (except April), up to the end of July; while between September 9th and November 17th, 7 of those admitted died from puerperal fever. On the 7th and 8th of June, 1860, 3 patients were admitted, and they all died from this disease. After an interval of seven months 6 deaths occurred between the middle of February and the middle of May. The last death in this year was in December. In February and March, 1862, there was 1 death in each month; in April the 2 cases were admitted between the 9th and 16th; 4 other cases happened in May and June. The 2 cases in March, 1863, occurred within six days.

From Table III it may be inferred that first labours predispose to the affection. Table V shows that the minimum number of deaths occurred in October and August; next to these, in November and April; that January, July, September, and December, equally rank next; that May and June occupy the next most favorable positions; that February and March are the most unhealthy months; and that 1828, '48, '49, '59, '62, were the most fatal years.

The cause of death standing next on the list is puerperal mania. The numbers here are very striking. Out of the 16 instances of its occurrence only 1 was a multiparous patient, and no less than 11 were single women. The death-rate from mania reads thus:

Married	12
Single	304
Total death-rate	206

Nearly all of these were instances of the acute disease, coming on soon after delivery, which, according to Dr. Hunter, is almost always fatal. In 12 out of the 16 cases the age of the patient was between 20 and 24; in the remaining 4 it varied, 1 occurring at 17, the others at 25, 28, and 29 respectively.

Next in the table is phthisis, from which there is a total of 18 deaths; this, again, is by far the most frequently met with amongst the single women, namely, in 11 instances, the remaining 7 being amongst the married patients.

Next in order comes diarrhœa, from which there are 10 deaths, divided between the married and single primiparæ. In a few of these cases the attack came on some time after the patient had been admitted. The larger number were admitted actually suffering from it, or from the exhaustion consequent thereon.

But I will not weary the Society with a detailed account of the remaining cases, which are more or less accidental; suffice it to say that of the 35 patients whose deaths require to be accounted for, 5 died from the effects of post-partem hæmorrhage, 3 from rupture of the uterus, 4 from pneumonia, in all of which old-standing disease of the lungs was present; 2 from pleurisy; 3 cases suddenly, from apoplexy; 3 others after convulsions, with more or less coma; 1 married multipara and 1 single primipara, suddenly, from old-standing disease of the heart; another married woman from rupture of the aorta from fatty degeneration; 2 from erysipelas, from which they were suffering on admission; 2 from scarlet fever, and 1 from measles; 2 from "shock;" and, lastly, 5 from exhaustion. One of these was a twin labour, and 1 was a compound presentation of the "hands and feet."

Lastly, Table VI is intended to show the per-centage of deaths from all causes, in each month of the year :

Month.	No. of Cases per Month, from 1828 to 1863.	Number of Deaths.	Per-centage of each Month.
January	588	19	3.23
February	680	25	3.67
March	800	25	3.12
April	699	15	2.14
May	726	19	2.61
June	702	20	2.84
July	554	19	3.43
August	662	14	2.11
September	579	15	2.59
October	565	7	1.23
November	527	8	1.51
December	552	16	2.9

This has been obtained by comparing the number of deaths from all causes in each month with the total number of patients admitted in the same period, and with the following result:—that the healthiest months were October and November; then August, April, September, May, June, December, March, January, July, and February. This order agrees very nearly with the result of Table IV, having reference to puerperal fever only.

I cannot conclude this portion of my paper more fitly than by giving a short account of the system of ventilation and general arrangement of the hospital. Preliminary to this I would quote the following passages from an address delivered by Mr. Paget before the British Medical Association in 1862. He says—"In every case of erysipelas, pyæmia, or the like, we ought to work till we can discover its probable origin; we should have the strongest feeling that these diseases are not spontaneous nor inevitable. In every case the hospital, or the house, or our own practice, should be brought to trial—to private trial, if you will, yet a just and true trial—a trial before our

own conscience; and if the hospital, the house, or the practice, be found guilty, let it be condemned and amended.

"Of all the remedies I have used or seen in use, I can find but one thing that I can call remedial for the whole disease, pyæmia, and that is a profuse supply of fresh air. In three of the most remarkable recoveries I have seen the patients might be said to have lain day and night in the wind—wind blowing all about their rooms."

Dr. Robert Ferguson, writing on the same subject, says—"Neither the skill, the comfort, the careful dieting, and even the assiduous nursing, which are lavished on the inmates of a hospital, diminish the mortality to a level with that attendant on the out-door population. In her own home the patient is generally better placed, with regard to ventilation, than in most hospitals, and in no malady is pure air, quickly changed, so requisite as in the puerperal state. It is, in fact, the chief prophylactic. A lying-in hospital should consist either of a series of cottages, or its spacious wards should contain very few patients."

"Whatever," says Cruveilhier, "favours the production of hospital gangrene favours that of uterine phlebitis; and, I will add, that both, in their severest forms, are only to be seen in hospitals."

Queen Charlotte's Hospital was founded under the name of the "General Lying-in Hospital," in the Uxbridge Road, in the year 1752. At the end of the last century it was removed to Bayswater, and called "The Queen's Lying-in Hospital;" and in 1809 it was removed to the Manor House of Lisson Green, the present site of the hospital, and since been named "Queen Charlotte's Lying-in Hospital." Many alterations and repairs were made to this building. But it appears that puerperal fever was very prevalent and very fatal on several occasions. Upwards of thirty years ago a ward was erected, detached from the main building, for the reception of patients suffering from this disease.

At last, in 1851, the committee made the following

report on the state of the building :—“ That to the want of proper ventilation, drainage, and other sanitary arrangements, they attributed for the most part the prevalence of puerperal fever and the unhealthy state of the hospital.” In 1856 the old hospital was entirely removed, and the present one erected. It contains two floors devoted to the reception of patients, one for married and one for single women. On each floor are six wards, containing three beds each, in which the patients are delivered, with an average of 1000 cubic feet space to each patient; but as each ward has not always its complement of three patients, the actual quantity of cubic space to each bed is somewhat increased; on each floor, also, is one convalescent ward containing six beds. The walls of the wards are made of Parian cement, painted, and varnished so as to enable them to be perfectly well washed. Through the building runs a corridor eighty-four feet long by seven wide, having a window at each end, and a large staircase opening at its centre, in the roof of which is a ventilating shaft protected by a cowl. The whole of the hospital is thus completely ventilated.

Each ward is ventilated by means of an opening in a shaft that is carried to the top of the building, an Arnott's ventilator in the chimney, and an opening (that can be closed) over the door communicating with the corridor. The windows are on the plan adopted at St. George's and the Middlesex Hospitals, and form ventilators of themselves.

In each ward there is a constant supply of hot water, and the corridors are heated by the means of pipes containing hot water. The water-closets—one on each floor—are external to the building, and approached through an ante-room, so as to be entirely cut off from the rest of the building. The soil is for many feet of the best gravel, and every attention has been paid to the drainage.

As soon as a patient is able to be moved from the ward in which she has been delivered, she is placed in the convalescent ward, where she remains until she leaves the

hospital. As soon as three patients have been delivered in a ward it is not again used until it has been well cleaned, as well as the beds and bedding. By this plan each ward remains vacant for a week or ten days before patients are again admitted into it. When a case of fever occurs the ward is freshly whitewashed, and the walls thoroughly washed down (in some cases repainted), the bedding purified and re-made, and the ward not occupied again for at least a month. Everything has been done, both in the construction of the building and in the arrangements for the management of the patients, with a view to render them as little liable to disease as possible.