

blood which enters into the lungs is equal to, or even perhaps greater than, that which is sent in the same time throughout the rest of the body. And, as the chief business of the lungs is for respiration, by which they are kept constantly in action, so it will appear evident why hæmorrhages here are more dangerous, as well as more obstinate, than in any other part, as their constant motion counteracts and prevents the union of the ruptured vessel.

Queen Anne Street, East,
August 7, 1792.

XI. *An Account of a Disease which, until lately, proved fatal to a great Number of Infants in the Lying-in Hospital of Dublin; with Observations on its Causes and Prevention. By Joseph Clarke, M. D. Master of the Hospital above mentioned, and M. R. I. A. — From the Transactions of the Royal Irish Academy, 1789. 4to. Dublin, 1789.*

LYING-IN Hospitals are institutions of such recent date, and so few in number, that hitherto we may consider them as in a state of infancy. Excepting some portion of the Hotel Dieu of Paris, which has been long allotted

lotted to the relief of poor pregnant women, I know of none that have existed above forty years, and very few can lay claim even to this antiquity. It can hardly appear unreasonable, therefore, to suppose that imperfections still exist in their management, which time and accurate comparison may serve to detect : and although such establishments be at present confined to a few of the capital cities in Europe, it is probable their number will increase as their good effects in society are experienced. It is hoped, therefore, that a few facts and observations, tending to point out a considerable source of error in an extensive lying-in hospital, may be deemed worthy of public notice ; both present and future institutions of this nature may, perhaps, derive some useful information from such enquiry.

Several years ago, in attempting to ascertain the nature of the disease which is the subject of the following remarks, I found the doctrines contained in most medical books of very little use : all the morbid causes, commonly supposed to produce diseases in infancy, appeared to me inadequate to an explanation of its phenomena. Doubts of course arose in my mind, some of which have been already stated to the public.

public*. At length I was tempted to hazard a conjecture, which then appeared probable, and which succeeding events seem to have confirmed. A sketch of the evidence is here, with deference, submitted to the candid consideration of physicians, and of this Academy.

At the conclusion of the year 1782, of seventeen thousand six hundred and fifty infants born alive in the Lying-in Hospital of this city, two thousand nine hundred and forty-four had died within the first fortnight †, that is nearly every sixth child, or about seventeen in the hundred. This was obviously a large proportion of deaths, as we shall prove more particularly hereafter. The disease which carried off most of these children, perhaps nineteen of twenty, was general convulsions, or what our nurse-tenders have been long in the habit of calling the nine-day fits, as constantly occurring within the first nine days after birth. As this disease has hitherto yielded to no remedy, I have been always more engaged in attending to its prevention than cure. I am chiefly indebted for its history, therefore, to the united

* See Observations on the Properties commonly attributed by medical Writers to human Milk, &c. Transactions of the Royal Irish Academy, Vol. II. and London Medical Journal, Vol. XI.

† See abstract of registry at the end of this essay.

reports of several of our most experienced nurse-tenders. I took down their remarks separately, and from the whole collected what follows.

In general it has been observed that such children as are disposed to whine and cry much from their birth, and such as are subject to heavy deep sleeps, or startings in their sleep, are peculiarly apt to fall into convulsive affections. Twisting of the upper extremities, while awake, without any evident cause; a livid circle about the lips, and sudden changes of colour in the countenance, have now and then been thought to portend the nine-day fits. Screwing and gathering of the mouth into a purse, accompanied at intervals with a particular kind of shrieking, well known to the experienced nurse-tenders, are reckoned sure, and by no means distant, forerunners. Sometimes previous to these symptoms, and sometimes along with them, the infants are observed to be unusually greedy for sucking at the breast, or feeding by the spoon; laxatives given, in such situations, seldom fail to operate freely, sometimes bringing away greenish, slimy, or knotty stools; though not unfrequently they are of a natural yellow colour, as I myself have more than once seen.

Generally with one or more of these symptoms preceding, but sometimes without any warning whatever, the infants are seized with violent irregular contractions and relaxations of the muscular frame, but particularly of those of the extremities and face. These convulsive motions recur at uncertain intervals, and produce various effects. In some the agitation is very great; the mouth foams; the thumbs are riveted into the palms of the hands; the jaws are locked from the commencement, so as to prevent the actions of sucking and swallowing; and any attempts to wet the mouth or fauces, or to administer medicines, seem to aggravate the spasms very much; the face becomes turgid, and of a livid hue, as do most other parts of the body. From this circumstance, and from the shorter duration of the disease, when it occurs in this form, the nurses reckon this a different species, and call it the black fits. The conflict in such cases lasts from about eight to thirty hours, and in some very rare cases to about forty hours, when the powers of nature sink exhausted and overpowered, as it were, with their own exertions.

It much more frequently happens, however, that the spasmodic contractions are not so strong as above described; that the extremities are rather

ther twisted than convulsed; that the power of sucking, but more certainly of deglutition, is not lost till near death; that the mouth foams less; and that the paroxysms recurring at more distant intervals, continue to harass the patient from three to five days, and in some rare instances to seven and even nine. During all this period the face remains pale; and the body, from being perhaps very plump, is reduced to a most miserable spectre by emaciation and disease. This the nurses consider as a second species, and call it the white fits.

Both these supposed species, which may perhaps be more justly considered as varieties of the same disease, agree in constantly attacking within nine days from birth, and most frequently about the falling off of the umbilical chord. This is an event which generally takes place from the fourth to the sixth or seventh day. Diarrhœa is a constant concomitant of both species. Long and sad experience have found them also to be both equally fatal, insomuch, that the memory of the oldest person does not furnish an instance of one being cured.

In order to place my ideas of the cause of this fatal disease in the clearest point of view, I find it necessary to have recourse to extracts

from a letter written by me in the year 1783 to the late Doctor Hutcheson, who was then consulting physician to the hospital in question.

In this letter, which was written after having seen some of the best regulated Lying-in Hospitals in London, I stated to Doctor Hutcheson,

That in an old hospital, which preceded the present, but instituted by and under the care of the same gentleman, and in a less airy part of Dublin, of three thousand seven hundred and forty-six children therein born, only two hundred and forty-one died within the first month*, which are in the proportion of one to fifteen and a half, or from six to seven in the hundred.

That during a period of five or six years, in the British Lying-in Hospital, London, of three thousand six hundred and eleven therein born, only one hundred and forty-six died, within the first three weeks or month, which are as one to twenty-five, or four in the hundred.

That in the London Lying-in Hospital I was positively assured that the death of an infant was

* See the case of Mr. Mosse, offered to the consideration of the Irish House of Commons in the year 1755.

a rare occurrence. It is there computed with some confidence (for I was told that no written account is kept) that the number of still-born infants far exceeds the number of those dying after birth. The proportion of still-born we know to be about a twentieth part, or five in the hundred.

That near forty years ago, when the diseases of children were less understood, and more especially the salutary practice of inoculation, Doctor Short computed from some very extensive registers, that London lost thirty-nine per cent. under the age of two years—Edinburgh and Northampton thirty-four or thirty-five—Sheffield twenty-eight—country places from twenty to twenty-eight;—whereas in the Dublin hospital there was lost a number equal to half of that lost in many of these places, and nearly equal to the whole of that in some of them, in two weeks, or in about the fiftieth part of the same space of time. From which, and some other considerations of less weight, I thought the uncommon mortality of children in the Dublin Lying-in Hospital satisfactorily proved.

I then ventured to hazard some conjectures concerning the causes of a mortality, by which so many useful lives were lost to the state.

- 1st, Foul air, or an impure atmosphere ;
 2d, Neglect of keeping the children clean and dry ;
 3d, Irregularity in the manner of living of their mothers, more especially in the abuse of spirituous liquors,—were the causes which appeared to me the most probable, either separately or perhaps combined ; but I suspected that the first, viz. an impure or phlogisticated atmosphere, contributed most powerfully to the general calamity. For,

First. I remarked to him that public registers proved the mortality of children to increase proportionably with the size of towns ; and that the larger towns are, the more numerous are the causes which have a tendency to taint their atmosphere, and thereby render it less fit for the purposes of salutary respiration.

Secondly. That in private practice physicians in the city of Dublin did not find the mortality of infants in any degree so considerable as our registry proved it to be in the Hospital, a proof that there was here some peculiar exciting cause of disease.

Thirdly. That the difference between the mortality of the children in the old hospital and in the present one, when under the management
of

of the same eminent character, Mr. Möffe, afforded the strongest evidence in favour of this conjecture. Such difference could not be supposed to arise from any different method of feeding or cloathing them, or in the exhibition of medicines; to me it seemed to originate from a difference in the apartments and accommodations of the women. In the former, which was an old house, and never designed for an hospital, were one or two, or at most three beds in a room, to each of which there must have been a door, and one or two, perhaps three windows; whereas in the latter were eight beds in the same room, and only one door properly speaking*, with three windows in some, and two in others; whence it is evident that the supply of fresh air in each being nearly on an equality, it must be much sooner corrupted by the respiration, lochial discharges, and other effluvia of eight

* There is indeed a second door to each of our large wards; but as it opens into a small ward, containing two beds, it is probable the air derived from such communication is not very salubrious. The dimensions of our large wards, in the front of the hospital, are 36 feet by 23, and 13 in height: in the rear $33\frac{1}{2}$ by 23, and of equal height. The small wards in front are 19 by $12\frac{1}{2}$; and in rear, 18 by $13\frac{1}{2}$.

women and as many children, than by those of two or three.

Fourthly. I observed, in farther confirmation of this doctrine, that the British Lying-in Hospital in London, which is very favourable to the lives of infants, was an old building, which seemed not to have been originally designed for an hospital; in it there were but six beds in a room with one door, one small and three large windows, with a ventilator to each of the latter; that their beds had curtains, but no canopies as in Dublin, and that the utmost cleanliness was in every respect observed. That in the London Lying-in Hospital, which is an elegant modern building, there are but seven beds to a ward, with two large and four small windows to each, one door with a large ventilator over it, the ceilings lofty and perforated by an air-pipe of several inches diameter, which passes out at some part of the roof. Here also the most scrupulous cleanliness is observed, and large supplies of clean linen given both for beds, women and infants; and here the death of an infant is a rare occurrence.

Lastly. I alledged it was by no means inconsistent with analogy or reason to suppose that the accumulated effluvia arising from the bodies of puerperal

puerperal women and children in lying-in hospitals might acquire qualities peculiarly noxious to the delicate frame of infants. That in other hospitals and gaols, as the pernicious effects of accumulated human effluvia have been often experienced by robust adults, it is possible that degrees of contagion inferior to these may prove fatal to infants. I concluded with quoting the authority of Arbuthnot, who has observed “ that
 “ the air of cities is very unfriendly to infants
 “ and children; for that as every animal is adapted by nature to the use of fresh and free air,
 “ the tolerance of air replete with sulphureous
 “ steams of fuel and the perspirable matter of
 “ animals (as that of cities) is the effect of
 “ habit which young creatures have not yet experienced* ;” and that if the air of cities be unfriendly, *a fortiori*, so must the air of hospitals in cities, and that in proportion to their want of ventilation.

To these reasons I might have added, on the authority of Doctor Priestley, that healthy animals almost always die of convulsions on being put into air in which other animals have died, after breathing it as long as they could; and that most other kinds of air, noxious to animal

* Essay concerning the Effects of Air on human Bodies.
 life,

life, produce similar effects. See Experiments and Observations on different Kinds of Air, Vol. I. page 71.

Viewing the subject in this light, I proposed a number of alterations intended for the more complete ventilation of the hospital, and for which I was principally indebted to Mr. White's excellent work on the management of lying-in women. My observations had the effect I wished with Doctor Hutcheson and the medical governors. Apertures of a considerable size were made in the ceilings of each ward, which have been since changed for air pipes of six inches diameter. Three holes, of an inch diameter, were bored, in an oblique direction, through each window frame at top. The upper parts of the doors, opening into the gallery, were also perforated with a great number of holes. By these means a free and easy passage was given to the air through the wards at all times, and executed in such a manner as to put it out of the power of nurse-tenders or patients to control it. Since the above period also the number of beds in the large wards have been reduced to seven, and several changes made in their construction, which render them more airy, and more easily kept clean. The consequences have been favourable

avourable far beyond the expectation of every person concerned. The nine-day fits are become visibly less frequent; and the abstract of our registry shews the fact at first view to the most inattentive observer. Of eight thousand and thirty-three children born since the above period, only four hundred and nineteen have died in the hospital; that is nearly one in nineteen and a third, or from five to six in the hundred. Had the mortality of infants been in this proportion since the commencement of the Dublin hospital, the number of children dead would have been somewhat about thirteen hundred, instead of the present number, three thousand three hundred and sixty-three; or in other words, above two thousand lives would have been saved to the community.

That this diminution of mortality is to be attributed to improvements in ventilation can admit, I think, of little doubt. No other new mode of management has been of late practised to account for it. No other remedies used than such as have been tried a thousand times unsuccessfully. I know it has been objected, that it may be owing to their mothers now remaining a shorter space of time in the hospital than formerly. In order to ascertain whether
 this

this be a matter of fact, I have, for the last two years, had an entry made of the day on which each infant died; the number dead has been one hundred and fourteen, and they have died on the following days after their birth:

| | | | | | | | | | | | | |
|-----------|-------|-------|------|------|------|------|------|------|-----|-----|------|-----------|
| 12th day, | 11th, | 10th, | 9th, | 8th, | 7th, | 6th, | 5th, | 4th, | 3d, | 2d, | 1st. | Total. |
| 1 died. | 0. | 3. | 3. | 5. | 24. | 37. | 18. | 6. | 5. | 10. | 2. | 114 died. |

Hence it is obvious that the fatal days are the fifth, the seventh, but especially the sixth; and either of these are undoubtedly much within the average day of the discharge of our patients. Besides, the early discharge of patients did not commence in any one year, as the lessened mortality of infants did; it arose from gradual increase in the number of poor demanding admission; and I am happy to add, that some late very liberal donations, and a consequent increase in the number of our beds, have put an end to the necessity of this disagreeable expedient, adopted solely with a view of affording indiscriminate relief.

It might naturally be supposed that an atmosphere, which we have endeavoured to prove injurious to the health of infants, would also somewhat affect the chances of life in their mothers. The fact, however, certainly is, that on an average fewer women have died in child-bed

bed in the Dublin hospital than in most other lying-in hospitals, (Compare the abstract at the end of this essay with facts contained in the postscript to Mr. White's treatise on the management of pregnant and puerperal women.) Here then a question arises, why should infants be so much more liable to injury from an impure atmosphere than adults? Is it possible that mothers shall escape with impunity and their children perish? This, I own, puzzled me extremely, and had almost made me doubt of what I considered a fact, supported by the strongest probable evidence. By accident, however, in looking over a dissertation on the food and discharges of the human body, by our celebrated countryman, the late Doctor Bryan Robinson, I found some facts and observations which appear to me to go a great way towards an explanation.

In order to make these facts intelligible to persons not very conversant in such speculations, I must premise, that Doctor Priestley has fully proved one great and indispensable use of respiration to be to carry off or lessen a certain quality in the blood, which is known by the name of phlogiston. That this can only be done by pure air. That by the addition of phlogiston

to blood it acquires a deep black colour; and by its avolation, that blood returns to its natural florid hue.

Now Doctor Robinſon found by experiment*, that the weight of the heart, in reſpect to the weight of the body, is greater in children than in grown bodies, and that their quantity of blood is proportional to the weight of the heart. He found alſo, that the quantity of blood, which flows through the lungs in a given time, in proportion to the maſs of circulating fluids, is greater in children than in grown bodies; and that this proportion leſſens continually from the birth till bodies arrive at their growth. Hence he remarks, that as the blood of children paſſes oftener through the lungs, it is more fluid and of a brighter colour than the blood of grown perſons.

If this be a true picture of the conſtitution of infants, we muſt preſume that ſuch peculiarities are intended to answer ſome very important purpoſes in the œconomy of young animals; and that in proportion as the intention of Nature is in theſe reſpects fruſtrated, the effects will be more or leſs ſeverely felt. Would it be deem-

* See page 13, et ſeq. of his work.

ed a conjecture, exceeding the bounds of probability, to suspect that the avolation of a very large quantity of phlogiston, and its due separation from the mass of blood by pure air, may be essentially necessary to the growth of young animals; and that this may be one reason why the impure air of cities has, in all ages, been particularly destructive to their health?

With a view of reducing the nine day fits to its proper genus and species in nosology, I have turned over the works of some of our best writers on this subject. The only genus to which I think it can with any propriety be reduced, is that of *eclampsia* or *convulsion des enfans* of Sauvages. But although under this generic title he describes seventeen species, there is not one of them to which it bears an exact resemblance. The *eclampsia neophytorum* of Vander Monde is widely different, as any one may easily see by casting an eye over the history of both. As most of the species enumerated by Sauvages are symptomatic, and as he distinguishes several of them from various kinds of deleterious substances taken into the system; as *eclampsia ab atropa*, *cicuta*, &c. perhaps we might with equal propriety add *eclampsia ab atmosphæra phlogisticata*.

There

There is a sporadic disease in Minorca and some other countries so very like the nine day fits, in some particulars, that it may be worth while here to collect, under one point of view, a few extracts concerning it. Nosologists have given it the title of *trismus nascentium*. “ In hac urbe
 “ afflictantur plurimi infantes, adeo feroci convulsione mandibulæ inferioris, ut ea apprehensi, nullo possint motu illam movere, et
 “ abhinc suctus lactis impeditur omnino....Tot
 “ interficit mala ista convulsio, ac variolæ aut morbilli....In hoc periculum incurrunt recenter nati usque ad *nonum* suæ nativitatis diem,
 “ eoque transacto, omne discrimen cessare docuit semper experientia.” For these and some other observations, from the writings of a Spanish physician, we are indebted to my friend Doctor Cleghorn’s valuable treatise on the diseases of Minorca. After the history of the disease, the doctor observes that it is needless to add the remedies prescribed by the Spanish author, as he ingenuously confesses the disease to be so seldom curable, that in twenty years practice he had scarce known six to recover.

In Germany, Heister, de maxillæ spasmo, observes, “ Quod si sponte, sive e causa interna,
 “ hic maxillæ spasmus in infantibus, ut sæpe
 “ vidi,

“ vidi, contingit ut plurimum moriuntur et
 “ vix ullum servatum vidi; licet laudatissima
 “ remedia nervina et antispasmodica internè
 “ atque externè quam solertissimè adhibita fue-
 “ rint.”

Hofer, in the first volume of the *Acta Helvetica*, has given a long account of a disease not unfrequent in some parts of Switzerland, which Sauvages and Cullen seem to think of the same species with the preceding, but which differs from them very materially in some respects.— The title of his paper is, *De tetano maxillæ inferioris in Infantibus*. “ Subjectum isti ob-
 “ noxium,” says he, “ est infans, qui inter
 “ tertiam et *duodecimam* ætatis diem versa-
 “ tur. Cura hujus morbi, quamvis valde
 “ lenta sit, attamen si infans quintam a mor-
 “ bi invasione diem transegerit certissime fe-
 “ lix est, ideoque dummodo tempus terere
 “ possumus, res in salvo posita est.” After giving an account of his method of cure, which consists of a farrago of distilled waters, syrups and inert powders, as may be seen in Sauvages, he concludes, “ hæc est methodus applicando-
 “ rum medicamentorum, quâ ex tribus ægro-
 VOL. III. H “ tulis

“tulis curæ meæ commiffis plerumque unus
 “gratiâ divinâ evafit.”

A late French author, Monf. Fourcroy, in a treatife entitled *Les Enfans elevés dans l'ordre de la Nature*, remarks “Quand je fuis arrivé
 “en 1744 a St. Domingue, on ne pouvoit ele-
 “ver des negrillons dans la plaine du Cap Fran-
 “cois. Ils mouroient prefque tous, c'eft a
 “dire environ quatre vingt fur cent, d'une ma-
 “ladie appellée dans le pays *mal de machoire*
 “ou *tetanos*, qui les emportoit dans les *neuf*
 “premiers jours de leur naiffance.” This dif-
 order he informs us, when come on, is beyond
 the power of medicine, but that much may be
 done in the way of prevention.

From thefe obfervations it is evident,

That in certain parts of the world children
 are more fubject to fpafmodic difeafes than
 others.

That thefe are more apt to come on within
 nine days after birth.

That coming on within this period they are
 generally productive of the moft fatal effects.

And

And lastly,

That their causes and cure are ever involved in obscurity.

In each of these particulars, there is a striking analogy between the trismus nascentium or tetanus maxillæ inferioris and the nine-day fits.

It is farther worthy of observation, that the disorders of adults, which are confined to particular districts or tracts of country, more frequently arise from something noxious infecting the atmosphere of such places than from any other cause; and however difficult it may be to apply this doctrine to the cases in question, it at least affords some probable evidence towards the supposition, that they originate from somewhat similar causes.

Such are the observations which reflection and some reading suggested to me on this subject, previous to the publication of the London Medical Transactions in the year 1785. In this very excellent work, however, I met with
 “ An account of a singular disease which pre-
 H 2 “ veiled

“ vailed among some poor children maintained
 “ by the parish of St. James in Westminster;”
 which appears to me to throw much light on
 this obscure subject: I hope to be excused,
 therefore, for making some extracts from this
 valuable essay, for which the world is in-
 debted to the accurate and learned Sir George
 Baker.

Sir George informs us, that on the 24th day
 of September, 1782, seventy-three children,
 viz. forty-six girls and twenty-seven boys, of dif-
 ferent ages, from that of seven to fourteen
 years, were removed from Wimbleton to a large
 house near Golden-Square. To this house these
 children came in good health, and continued so
 for a fortnight; when on the 8th of October, a
 girl aged thirteen years was suddenly seized with
 an excruciating pain in the region of the stomach
 and in the back, which was soon followed by
 violent head-ach, delirium and convulsions.
 After a few days, another and another girl were
 attacked exactly in the same manner; and tow-
 ards the end of the month this disease had so
 prevailed as very much to alarm all those to
 whom the care of these children had been
 committed. On the 29th day of October Sir
 George's

George's advice was desired. He found nine of these poor girls and a female servant in the same room suffering the various effects of a most dreadful malady. Five were in the agonies of extreme pain, three were most cruelly convulsed, and the other two were raving in a fit of delirium. The other inhabitants of this house had in general been healthy during the month of October, and it is remarkable that the disease above described affected females only, and was confined to those who had slept together in a certain room on the second floor. The height of this room was a little more than eight feet, the length twenty, and the breadth sixteen: it contained ten beds, in which it was intended that eighteen girls, two in each bed, and a female servant singly should sleep; but Sir George discovered that this being a favourite room on account of its warmth, was generally crowded at night by a much greater number than its complement: that as much space as possible might be made for beds, the chimney had been stopped up with bricks, and it had been the constant custom of the servant at night to keep the door shut and to close the window shutters, that as little fresh air as possible might be admitted

On enquiry it appeared that three candles and a lamp of oil had been generally used during the night in this chamber, but they were hardly of any service, giving a glimmering light and frequently almost extinguished.

Sir George advised the chamber of the sick to be evacuated without delay, the healthy to be separated from the diseased, the chimney to be opened, and whatever tended to exclude fresh air to be removed. These directions were complied with, and the patients having been removed to a large apartment (where proper care was taken that fresh air might be admitted) passed a quiet night free from every symptom of the disease. However, the next morning, immediately on their awaking, they were all seized in the usual manner, but it was very soon observable, that the paroxysms returned less often and with less violence, and sometimes without convulsions, and that during the intervals the delirium appeared gradually to abate.

From these and various other important facts which we cannot here recite, Sir George conjectures that the source of this extraordinary disease was vitiated air. To me his evidence appears sufficient to afford conviction to every reasonable

reasonable

reasonable mind, and if I am not mistaken, it adds greatly to the probability of the opinion, which supposes that the nine-day fits originated from a similar source.

Upon the whole, from the evidence adduced, I hope the following inferences may not appear improbable.

1. That one effect of an impure atmosphere, on the human body, is to produce spasms and convulsions.

2. That all young creatures, and especially infants within nine days after birth, suffer most severely by such a noxious cause; and therefore

3. That in the construction of lying-in hospitals, and perhaps of all public buildings intended for the reception of children, lofty ceilings, large windows and moderate sized rooms should be especially attended to.

4. That in the arrangement of such edifices, no apartment should be completely filled with beds, if it can be conveniently avoided; and

5. That in their management attention is especially necessary to cleanliness, as well as to

the constant and uniform admission of atmospheric air by night as well as by day; and

Lastly. That by pursuing such measures with care, diseases may be prevented which it has hitherto been found difficult, and sometimes impossible, to cure.

XII. Ob-

An ABSTRACT of the REGISTRY * kept at the LYING-IN HOSPITAL, in DUBLIN,
From the 8th of DECEMBER, 1757, (the Day it was first opened) to the 31st of DECEMBER,
1788, each Year distinguished.

By B. H. Register.

| | Number of Pa- tients ad- mitted. | Went out not delivered. | Delivered in the Hospital. | Boys born. | Girls born. | Total Number of Chil- dren. | Women having twins. | Children dead. | Children still-born. | Women dead. | |
|--|---|-------------------------------|----------------------------------|---------------|----------------|--------------------------------------|---------------------------|-------------------|-------------------------|----------------|----|
| From 8th to 31st De- cember } 1757 | 55 | — | 55 | 30 | 25 | 55 | — | 6 | 3 | 1 | |
| Year ending 31st of December | 1758 | 455 | 1 | 454 | 255 | 207 | 462 | 8 | 54 | 21 | 8 |
| | 1759 | 413 | 7 | 406 | 228 | 192 | 420 | 13 1 had 3 | 95 | 22 | 5 |
| | 1760 | 571 | 15 | 556 | 300 | 260 | 560 | 4 | 116 | 36 | 4 |
| | 1761 | 537 | 16 | 521 | 283 | 249 | 532 | 11 | 104 | 29 | 9 |
| | 1762 | 550 | 17 | 533 | 279 | 266 | 545 | 12 | 106 | 33 | 6 |
| | 1763 | 519 | 31 | 488 | 274 | 224 | 498 | 12 | 94 | 29 | 9 |
| | 1764 | 610 | 22 | 588 | 287 | 308 | 595 | 7 | 83 | 28 | 12 |
| | 1765 | 559 | 26 | 533 | 288 | 251 | 539 | 6 | 94 | 25 | 6 |
| | 1766 | 611 | 30 | 581 | 324 | 261 | 585 | 4 | 111 | 18 | 3 |
| | 1767 | 695 | 31 | 664 | 373 | 301 | 674 | 10 | 125 | 29 | 11 |
| | 1768 | 689 | 34 | 655 | 362 | 302 | 664 | 9 | 154 | 47 | 16 |
| | 1769 | 675 | 33 | 642 | 350 | 301 | 651 | 9 | 152 | 38 | 8 |
| | 1770 | 705 | 35 | 670 | 372 | 305 | 677 | 7 | 107 | 37 | 8 |
| | 1771 | 724 | 29 | 695 | 370 | 341 | 711 | 16 | 102 | 44 | 5 |
| | 1772 | 725 | 21 | 704 | 368 | 344 | 712 | 8 | 116 | 32 | 4 |
| | 1773 | 727 | 33 | 694 | 367 | 344 | 711 | 17 | 136 | 31 | 13 |
| | 1774 | 709 | 28 | 681 | 357 | 334 | 691 | 10 | 154 | 29 | 21 |
| | 1775 | 752 | 24 | 728 | 364 | 378 | 742 | 14 | 122 | 27 | 5 |
| | 1776 | 883 | 31 | 802 | 418 | 407 | 825 | 22 1 had 3 | 132 | 39 | 7 |
| | 1777 | 872 | 37 | 835 | 452 | 395 | 847 | 12 | 145 | 35 | 7 |
| 1778 | 961 | 34 | 927 | 476 | 460 | 936 | 9 | 127 | 39 | 10 | |
| 1779 | 1064 | 53 | 1011 | 550 | 476 | 1026 | 15 | 146 | 59 | 8 | |
| 1780 | 967 | 48 | 919 | 499 | 441 | 940 | 21 | 115 | 41 | 5 | |
| 1781 | 1079 | 52 | 1027 | 598 | 447 | 1045 | 18 | 121 | 38 | 6 | |
| 1782 | 1021 | 31 | 990 | 549 | 458 | 1007 | 17 | 127 | 57 | 6 | |
| 1783 | 1230 | 63 | 1167 | 632 | 553 | 1185 | 17 1 had 3 | 91 | 72 | 15 | |
| 1784 | 1317 | 56 | 1261 | 643 | 641 | 1284 | 24 | 76 | 68 | 11 | |
| 1785 | 1349 | 57 | 1292 | 711 | 609 | 1320 | 28 1 had 3 | 87 | 75 | 8 | |
| 1786 | 1396 | 45 | 1351 | 716 | 656 | 1372 | 21 | 51 | 101 | 8 | |
| 1787 | 1418 | 71 | 1347 | 705 | 670 | 1375 | 28 | 59 | 95 | 14 | |
| 1788 | 1533 | 64 | 1469 | 725 | 771 | 1496 | 25 1 had 4 | 55 | 72 | 23 | |
| Totals | 26321 | 1075 | 25246 | 13505 | 12177 | 25682 | 432 | 3363 | 1349 | 282 | |

Proportion of males and females born, about *nine* males to *eight* females.

———— children dying in the hospital, as *one* to about *seven*.

———— children still born, as *one* to about *nineteen*.

———— women having twins (and more), as *one* to about *fifty eight*.

———— women dying in childbed, as *one* to about *ninety*.

———— women having *three* (and *four*) children, as *one* to about *five thousand and fifty*.

* An abstract of this Registry, from 1757 to 1784, was annexed by Dr. Clarke to his letters to the late Dr. Price, (see *Philosophical Transactions*, Vol. LXXVI. and *London Medical Journal*, Vol. IX.); but the present abstract, being brought down to a later period, includes a much greater number of facts, and, in particular, shows the decreased mortality of children in the Hospital since the year 1783.—EDITOR.