
 SECTION II.

 MEDICAL OBSERVATIONS.

I.

History of a Case of Convulsions during the latter months of Pregnancy, with Practical Remarks on Convulsions during Pregnancy and Labour. By James Hamilton junior, M. D. Professor of Midwifery in the University of Edinburgh.

MRS M. aged twenty-five, of a melancholic temperament, fully seven months advanced in her first pregnancy, having been seized with violent convulsions at 8 o'clock A. M. of December 24. 1799, was visited by Dr Fitzgerald of Virginia, then my annual pupil, and myself, about an hour after the first attack. We found her nearly insensible, with an oppressed slow pulse, the pupils of
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the eyes greatly dilated, the lower extremities much swelled from anasarca, and without any symptoms whatever of approaching labour. On inquiry, we learned, that her limbs had been swelled for above a fortnight, and that on the day preceding our visit, she had complained much of headach. During the night, she had been restless and sick. Her bowels had for some weeks been rather constipated.

A vein in the arm was immediately opened, and a sufficient plug forced into the mouth. After six or eight ounces of blood had been discharged, a violent fit, (the third from the beginning,) came on, and continued for several minutes; after which, it was perceived that the superior extremities had become so swelled, that the blood almost ceased to flow. Several leeches were now applied to the temple, and the bowels were freely opened by a glyster. Above an hour elapsed without any return of the convulsions, during which time a considerable quantity of blood was discharged from the temple. But on the recurrence of the fit, the anasarca was extended to the face, which swelled it prodigiously, and
completely

completely closed the bites of the leeches. The whole head was now shaved; and at three o'clock P. M. was covered by a large blister.

From this period, the fits recurred at short intervals; and during the time of their remission, which scarcely ever exceeded half an hour, great restlessness and stertorous breathing took place, together with that appearance of the countenance which occurs in apoplexy. No change happened till about three o'clock A. M. of the 25th, when the blister began to discharge freely, and the restlessness and stertor ceased. The patient swallowed now, from time to time, a little gruel, and no fit recurred for four or five hours.

When Dr Fitzgerald and I visited her, early in the morning of the 25th, we found her somewhat more sensible to external impressions; but the pupils of the eyes were still greatly dilated, the pulse slow, irregular, and oppressed, and the fits were again beginning to recur at shorter intervals. A fresh blister was applied to the head, and ten drops of the saturated tincture of digitalis were directed to be given every half hour till a copious discharge of urine should be produced.

Although

Although the fits recurred occasionally at irregular intervals during the whole forenoon, the medicine was taken with much punctuality for eight hours, when great sickness and vomiting were excited, and a prodigious quantity of urine was passed involuntarily. From this time, the fits entirely ceased, the œdematous swelling of the face and upper extremities subsided, and the patient began to be able to take weak nourishment, and to answer any questions that were put to her. Pain in her head, and inability to move her right thigh, leg and foot, were the only circumstances she complained of. Four ounces of the camphorated julep, (of the strength of ℥ij of camphor to the pound), were ordered to be given every four hours, while awake. During the night, she repeatedly desired to be raised to make water, and had occasionally very sound sleep.

On the morning of the 26th, she had a powerful dose of jalap and calomel, which produced, in the course of the day, two or three copious discharges by stool.

She passed the following day without any untoward symptom; but, on the 28th, the
pain

pain in the head appeared to be aggravated, although a regular discharge, by means of strong epispastic ointment, had been kept up. The swelling in the lower extremities also seemed increased, as the pulse was rather oppressed and the eyes were dull. The use of the camphor was laid aside, and the tincture of digitalis was directed to be given in the dose of ten drops every hour. This was continued till evening, by which time repeated copious discharges of urine had taken place; the pain in the head had abated, and the swelling of the lower extremities had decreased.

For a few days, she had regularly a dose of camphor at bed-time, and her convalescence went on progressively.

At the end of a fortnight, symptoms of labour came on, and she was delivered of a male child that had been dead apparently for a considerable time.

Her lying in was not attended by any uncommon symptom; but for several weeks after delivery, she complained much of occasional vertigo and pain in the head. A course of bark and valerian, with country air and exercise, were prescribed, and, in the month of
August

August last, the patient was in her ordinary state of health.

Of the accidents to which, in civilized society, women are liable during the latter months of pregnancy, and during labour, convulsions are to be regarded as one of the most formidable. Writers on the general practice of physic have attended very little to the disease, and writers on midwifery have advanced the most contradictory doctrines on the subject * ; hence young practitioners are extremely apt to commit the most serious errors in its treatment.

* Dr Denman says, (Introduction, vol. ii. p. 401.), in noticing this disease, " Whatever has been done or omitted, has occasionally been blamed or regretted; and in consultations on cases of this kind, I have generally observed, that the person who advanced his opinion in the boldest manner, prevailed on the rest to acquiesce in his sentiments; the records of experience having been thought insufficient, or not so duly weighed as to justify our forming an irrefragable rule of practice."

treatment. A few remarks on the nature of the disease, and on the plan that should be pursued for its cure, may not therefore be unacceptable to practitioners.

The old distinction between eclampsia and epilepsia has been rejected by Dr Cullen, without sufficient reason. The convulsions that occur during pregnancy and labour, should be distinguished by the former name, for the disease is always an acute one, and it never, as far as my experience goes, lays the foundation for habitual epilepsy. To an inattentive practitioner, indeed, the phenomena appear similar to those of epilepsy; but, independent of its violence and fatality, there are many circumstances peculiar to it. This has been remarked by several authors, particularly Dr Denman*; but those circumstances have never been accurately pointed out in any publication which has fallen into my hands.

That epilepsy sometimes takes place during pregnancy, there can be no doubt. A
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* Ibid. p. 402.

case of this kind fell under my notice several years ago, where the disease was induced at an early period of pregnancy, in consequence of violent means having been employed to procure abortion. The fits came on suddenly; the whole frame was convulsed; coma succeeded; and from this the patient awoke quite unconscious of what had passed. There was seldom more than one paroxysm within twenty-four hours, but the patient continued to have a dull, stupid stare, and to be extremely sluggish. The disease went on, with increasing violence for above three years, and fatuity took place for a considerable time previous to death.

But the eclampsia, peculiar to pregnancy and labour, differs from epilepsy in the following respects.

1. The symptoms which precede the attack are well marked, announcing to an experienced practitioner the approach of the disease.

2. If the first fit do not prove fatal, and if no means of cure be attempted, it is within a few hours followed by other paroxysms, provided delivery do not take place.

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3. After the paroxysms, even where they have been very severe, the patient in many cases continues quite sensible during the intervals, and the sensibility returns the moment the fit is off.

4. What may appear still more extraordinary is, that, in some cases there is a remarkably increased susceptibility of impression of the external senses; and this supersensation is not confined to patients in whom the convulsions are slight. A most melancholy instance of this kind occurred some time ago. I was called to visit a patient just after she had had one very violent fit. She overheard quite distinctly what I whispered to Dr Randolph, then one of my private pupils, although the attendants, who were much nearer to us, and who were anxiously waiting for our opinion, could not distinguish a single word. She was seized within a few minutes with a second fit, and I immediately delivered her (of twins), but that fit proved fatal.

5. The aura epileptica never occurs in the cases alluded to.

6. The pulse is, in every case, affected in some degree, during the remissions of the fits.

It is slow, or oppressed, or intermitting, or frequent and rapid. But it is most commonly slow and oppressed, becoming fuller and more frequent after blood-letting.

These circumstances sufficiently point out the difference between the eclampsia parturientium and epilepsy, and, together with the history of Mrs M's case, preclude the necessity for a particular description of the symptoms of the disease. That there are no other marks of distinction, I do not pretend to assert; but those above stated may, I believe, be depended upon, and warrant our retaining the old name which Dr Cullen has rejected.

The distinction between this disease and hysteria is still more obvious, not only by the antecedent symptoms, but also by the phenomena of the fit. It is scarcely necessary to notice particularly the former, and, with regard to the latter, it is to be observed, that, in the hysterical paroxysm, the muscles of the face are seldom violently contorted, and when they are, the globus and sense of suffocation are very strongly marked, and are most essentially different from the frothing at the mouth,
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the strong workings of the tongue, and the hisping noise, as if from the retraction of the saliva, which take place in eclampsia. Besides, regular hysterical fits seldom happen during pregnancy, and never during labour. They sometimes occur during the puerperal state, and are attended under such circumstances with great danger. Dr Bott, along with myself, had occasion to see a melancholy case of this kind three years ago. The patient died within a few hours after the attack. Hysterical faintings, indeed, and other symptoms of irregular hysteria, are sometimes met with in pregnant women, but even these are generally confined to the early periods of pregnancy.

Women are liable during pregnancy and labour to another species of convulsions, which cannot be confounded with the disease in question, viz. the convulsions that succeed to profuse evacuations, and that are generally the harbingers of death. In such cases, the muscles of the face are violently, those of the extremities are scarcely affected; each fit terminates in deliquium; the fits recur at very short intervals, and the pulse is either

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quite imperceptible, or extremely feeble, undulating, or intermitting. Perhaps it may be deemed of little consequence to state those circumstances; as, it may be said, the profuse evacuations, which are the cause of the disease, must clearly point out its true nature, and, at any rate, these convulsions being symptomatic of approaching and hastening death, admit of no remedy. But many cases occur in the course of practice, which shew the fallacy of such reasoning. One very interesting example of this kind fell under the notice of Dr Fitzgerald last spring. The patient had been three days in labour before I was called in. After having waited a due time the effects of the natural efforts, necessity obliged us to deliver by the suitable means of art; and although the breech of the child (which presented) was much jammed in the passage, this was accomplished with tolerable ease. The patient suffered less than she had done for almost two days, and when the operation of delivery was completed, seemed quite relieved. We remained by her above an hour after this, in consequence of the child having been still-born; as our endeavours

deavours to restore suspended animation were continued for that time, although there had not been much reason from the beginning to indulge hopes of success. The patient was left apparently well ; but we had not proceeded above twenty yards, when we were suddenly called back. We found her face violently convulsed, and her body and limbs stiff. The fit, after lasting for two or three minutes, terminated in deliquium. The extremities were cold, and the pulse could scarcely be felt. There was no apparent hæmorrhagy ; but as such symptoms could arise only from loss of blood, I introduced my hand into the vagina, and found, as I expected, a prodigiously large coagulum of blood, which plugged up the passage. A quantity of fluid blood followed its extraction, but by the careful administration of the suitable means, the flooding was checked, and the patient had eventually a complete recovery.

Convulsions, attended with similar phenomena, but still more generally fatal than these, succeed to the violent cramps of the stomach, or diaphragm which sometimes supervene after delivery. Of these fatal cramps, I saw

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three

three cases in one year. In two of them the convulsions came on immediately before death. In the third, they continued for several hours, and resembled most exactly those which arise from profuse evacuations. In none of the cases was there any hæmorrhagy whatever. It must have been under such circumstances, and not in true eclampsia, that Dr Denman found the auricles and ventricles of the heart quite empty of blood.

The eclampsia, then, which happens during pregnancy and during labour, is to be regarded as a disease of a peculiar nature, bearing no strict analogy to any other disease of this climate, except the convulsions of children, which take place during the first four years of life, and are occasioned by the process of dentition, or violent irritations in the alimentary canal, or certain cutaneous affections.

The symptoms which precede the fits are very distinctly marked. They consist of violent lancinating pain in the head, or in the stomach, in which latter case there is deadly sickness, impaired or depraved vision, tinnitus aurium, deep sighing, and low delirium. The most ordinary combination of these symptoms

symptoms is pain in the head, tinnitus aurium, and dimness of sight, or the sensation of fire flashing before the eyes. This combination is common to the disease, both during pregnancy and labour. But pain in the stomach, with deadly sickness, and a kind of crampish sensation, is peculiar to convulsions during pregnancy, and deep sighing and low delirium precede the disease only where it occurs during labour. There is another symptom which takes place exclusively under the latter circumstance, and that is violent shivering. When this happens during the second stage of labour, and is preceded or succeeded by great irregularity of the pulse, convulsions inevitably follow, if proper means be not speedily adopted to prevent them.

Authors and practitioners have puzzled themselves very much about the causes of this disease; and one practitioner of great eminence, Dr Denman of London, recommends a practice diametrically opposite to the theory he proposes. This discrepancy of opinion upon a subject which appears extremely obvious, has probably arisen from confounding, under the general term convulsions, those dis-

eases which I have already endeavoured to discriminate from the eclampsia of pregnant and parturient women.

Predisponent cause.—That pregnancy predisposes to this disease, has been generally admitted by practitioners. . It has been denied by only one gentleman of eminence, Dr Bland of London*. But the fact is established upon too certain grounds, to be overturned by the authority of any individual. Every man of experience in midwifery, must have seen many cases where circumstances produced convulsions in pregnant women, which in this climate were never found to have that effect upon women not in that state. If anger, or grief, or terror, or corporeal agitation, be suddenly followed by eclampsia in pregnant women, and never be succeeded by that disease in those who are not pregnant, it surely cannot be doubted, that pregnancy produces a tendency to the complaint; and daily observation

* Observations on Human and Comparative Parturition: By R. Bland, M. D. A. S. S. Lond. 1794, page 136.

fervation proves that this actually happens. A gentlewoman about eight months pregnant, had a violent altercation with her husband one evening between eight and nine o'clock. She was immediately seized with symptoms threatening convulsions. At two o'clock of the morning I was sent for, after she had had repeated fits. The disease proved fatal an hour or two before noon next day. Another lady between six and seven months pregnant, was induced, while passing the evening with a cheerful party, to dance after supper. Between three and four o'clock of the morning, the preceding symptoms of convulsions began. When I saw her at eight o'clock, she had had several fits. She died in the afternoon of the same day.—But the general fact is so well known, that it is quite a work of supererogation to multiply examples.

Admitting then, that pregnancy does predispose to eclampsia, it must be of importance to ascertain in what manner it does so.

The most obvious effect of pregnancy during the latter months, is the increased action of the chylopoëtic viscera, and hence the formation of a larger than usual quantity of blood.

blood. But along with the increased quantity of circulating fluid, there must be impediments to its regular circulation through the several parts of the body, partly from the great additional supply sent to the uterine vessels, and partly from the pressure of the enlarged uterus upon the great bloodvessels. In consequence of this, the due return of the blood from the head must be in some degree prevented. This effect of the enlarged uterus has been disputed by Dr Denman*. But several facts incontestably prove it. Thus, all authors and practitioners have observed, that women are most liable to convulsions during their first pregnancy. Those who have a plurality of children in utero, are also more liable than others to the disease. And where œdematous swellings of the lower extremities take place to a considerable extent in the latter months of pregnancy, in women of an unimpaired constitution, copious blood-letting alone prevents the occurrence of convulsions either before or during labour.

But,

* Introduction, vol. ii. p. 411.

But, although there can be little doubt, that the increased formation of blood, and the interruption to its due return from the head, be predisponent causes to eclampsia, there is reason to deny, that these are the sole ones; for, if they were, the exciting causes should be only such as act by immediately increasing the determination to the head. This, however, is not strictly true; for irritations in the primæ viæ, and the violent struggles of the fœtus, have been followed by convulsions. It is probable, therefore, that the increased susceptibility of impression of the nervous system, also predisposes to this disease. Whether this be the peculiar effect of the process of utero-gestation, arising from the sympathy between the uterus and other parts; or whether it be merely the consequence of the altered state of the bloodvessels, according to the ingenious conjecture of Dr Monro *; it is not easy to determine.

During

* Observations on the Nervous System, page 47.
 " As different nerves intermixed are supplied by branches of the same artery, and as the arteries furnish
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During the process of labour, the slightest degrees of predisposition must be occasionally greatly increased, partly by long continued pain, and principally by the determination to the head, which the violent action of the uterus, diaphragm and abdominal muscles cannot fail to produce. Accordingly, we find, that convulsions frequently happen during labour, without the occurrence of any other obvious cause than the protraction of that process; and hence, as in many other cases, circumstances which, in a slight degree, act merely as predisponent causes, become, when in a higher degree, exciting ones. And, as a further proof that the act of parturition certainly predisposes to eclampsia, it may be stated, that affections of the mind excite the disease at that time, although they had had no such effect before labour began. I saw, last year,

furnish pia mater and cortical mater to the nerves in their progress, and evidently influence their energy, it may be a question meriting attention, whether sympathy of nerves may, in some measure, depend on the irritation or reaction of the accompanying blood-vessels."

year, along with Mr Boote of London, a most striking illustration of this. A poor girl, who, though unmarried, had become pregnant, had no other asylum than the house of her parents, people in the lowest rank of life. Reproaches and revilings were daily and hourly repeated. These had no evident effect upon her health till she had been for several hours in labour, and then a harsh expression was suddenly followed by the ordinary symptoms of threatening eclampsia. By the time we saw her, she had had above twelve fits, and those we witnessed were as violent as can be imagined. She was delivered by art, with all possible expedition; and, although the fits did not cease for forty-eight hours, she eventually recovered.

It has been generally remarked, that those of a melancholic temperament are most liable to this disease; and observation confirms the opinion. It must, at the same time, be allowed, that women of every temperament have been attacked by it. A circumstance of more importance to be determined is, the allegation that women in crowded cities are more predisposed to the disease than the inhabitants of small

small towns and of the country. This opinion is sanctioned by Dr Denman, and many other respectable practitioners. But in the course of my own experience, I have seen several cases in the vicinity of this place, where the patients were not merely at a distance from the atmosphere of the city, but were also strangers to the pernicious habits which mode of living has established among those who dwell in towns. And on conversing with many country practitioners of experience, I have had reason to believe, that the disease is not of such rare occurrence in country districts as has been asserted.

Although, therefore, impurities of the air, and improper modes of living, may aggravate the natural predisponent cause, (and indeed it can scarcely be doubted that they do so), yet it is most probable, that those circumstances do not of themselves constitute predisponent causes of eclampsia.

Exciting Causes.—Passions of the mind, pressure of the uterus, over-distension of that organ, or of the urinary bladder, violent corporeal agitation, blows upon the head, irritations

tations in the alimentary canal, the violent struggles of the fœtus in utero, the long continuance of hard labour and excessive pain, may be enumerated as the chief exciting causes. Of these, passions of the mind, pressure of the uterus, and the protraction of violent labour-throes, are of the most frequent occurrence.

Proximate Cause.—All the phenomena of the disease very unequivocally prove a determination of blood to the head. On many occasions, the symptoms preceding death are evidently those of apoplexy, and accordingly effusions of blood within the head have been discovered upon dissection*. But the degree of topical congestion within the cranium, which may be regarded as the proximate cause of the disease, is seldom so great as to be productive of rupture of the vessels.

It is probably quite unnecessary to offer any reasoning on this opinion to those who have seen cases of the disease. All the exciting causes clearly act by determining to the head,
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* Denman, loco citato.

either immediately, by interrupting the regular circulation of blood, or mediately, by affecting the nervous system.

Method of Treatment.—When fits have actually occurred during the latter months of pregnancy, the first remedy to be employed, after having adopted the suitable means for protecting the tongue, is blood-letting, both general and topical. Opening the external jugular might answer both purposes, but the restlessness of the patient in many cases makes the surgeon or attendants dread this operation. A quantity of blood, therefore, adapted to the exigency of the case, is to be drawn from the arm, and either a branch of the temporal artery is to be divided, or several leeches are to be applied to the temples. After the bleeding, a powerful laxative glyster ought to be exhibited. And if there be any evidence of disordered primæ viæ, an emetic must, if possible, be given. The state of the os uterî is then to be ascertained; and if labour have not commenced, no attempts whatever are to be made to promote that process. In some rare cases, however, where the bulk of the
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gravid uterus is enormous, it may be necessary to remove a part of its contents ; but such cases cannot happen once in a thousand instances of the disease.

Should the fits still continue, the head must be shaved, and covered with a large blister ; and if the oppression or fulness, or hardness of the pulse, be not removed, the blood-letting is to be repeated.

As soon as the patient becomes capable of swallowing, the camphor, in doses of ten grains, ought to be given every three or four hours. The most efficacious and palatable form in which this medicine can be prescribed, is by suspending it in boiling water, through the medium of alcohol, sugar and magnesia. Its use must be persevered in for several days, gradually lessening the number of doses.

Where the eclampsia has been preceded by œdema, as in the case of Mrs M., the digitalis may be employed, we are encouraged from the event in her case to believe, with much success.

Convulsions during labour are to be treated upon the same principles, with these additional precautions, that delivery is to be accomplished

plished by the most expeditious possible means, and that if the delivery be followed by uterine hæmorrhagy, the discharge is for some time to be rather encouraged than checked. I knew two instances of the fits which had been suspended for some hours, recurring, in consequence of the flooding being stopped, and in both cases the convulsions were removed, by allowing the discharge to return.

When the symptoms that precede eclampsia, take place in the latter months of pregnancy, the most certain method of guarding against the threatening accident is, having recourse to immediate blood-letting, and afterwards prescribing camphor, attention to the state of the bowels, and a spare diet.

When the same symptoms occur during labour, a copious bleeding should be instantly ordered, and the appropriate means of terminating the delivery should be adopted with as much expedition as may be consistent with the safety both of mother and child.

In these concise practical suggestions, practitioners will observe circumstances omitted, which have been recommended by gentlemen of deserved professional eminence, and novel-
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ties of practice proposed, which I believe have not hitherto been explicitly advised. Some explanation, therefore, of the plan above recommended may perhaps be expected.

The most obvious remedy apparently omitted is opium. This powerful medicine was not prescribed, as far as we have reason to know, by the practitioners who lived at the end of the 17th and beginning of the 18th centuries. The first author who, in strong terms, asserts the efficacy of opium in such cases, appears to be the translator of Astruc's *Midwifery**; and his opinion has been adopted by Dr Denman †, and by Dr Bland ‡. But in every case of true eclampsia, during pregnancy or labour, opiates do irreparable mischief, where a copious bleeding has not been premised; and even where that precaution has been attended to, they have been found useless, if not hurtful. Melancholy experience has completely established in my

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* *The Art of Midwifery, &c.* 8vo. London, printed for J. Nourse 1767. Appendix, page 295.

† Vol. ii. page 418.

‡ *Loco citato*, p. 136.

mind this practical precept; and I consider it to be a matter of very great moment, that it should be universally known; for general practitioners, who are often first called to those cases where the fits happen during pregnancy, are extremely apt to prescribe opium. I can solemnly declare, that no patient to whose assistance I have been called, who had taken a dose of opium previous to my arrival, has recovered, and I have known that medicine given in almost every variety of dose. My father, Dr A. Hamilton, of whose judgment and practical knowledge it does not become me to speak in the terms they so justly merit, prevented my ever employing opium under such circumstances.

A second remedy extolled by Dr Denman, and now, after a fair trial, rejected in my practice, is vomiting. This seems to have been a very common prescription in the time of Mauriceau, as he takes great pains to point out its hurtfulness in several parts of his works*. Where there are unequivocal marks
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* Particularly in Aphorism 232. "L'émétique est pernicieux aux femmes grosses, ou nouvellement accouchées,

of disordered stomach, an emetic may be prescribed with advantage after blood-letting, but it should be avoided under all other circumstances.

With regard to the warm-bath, which is a favourite remedy among foreign practitioners, and has been advised by several British authors, I have never had an opportunity of trying its effects. Upon theoretical principles I should reject it; but my chief reason for never having directed its use, has been the impossibility, in ordinary cases of practice, of commanding a warm-bath into which a woman in such a situation could be put.

Dashing cold water by surprise upon the face is a practice suggested by Dr Denman, and on which he had much dependence at one period. Experience lessened his hopes, and, many years ago, prevented my ever indulging any. I gave it several fair trials, (once or twice in public in the Lying-in-

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'couchées, qui sont surprises des convulsions." And Levret, p. 451. of his *L'Art des Accouchemens*, says, in reference to that aphorism, " Cette sentence est des mieux fondées, et elle doit être rigoureusement observée dans tous ses points."

Ward of the Royal Infirmary,) and had every reason to be convinced, that it rather aggravated than diminished the violence of the paroxysms.

. . . In the practice which I have ventured to recommend, the principal novelties are, the use of camphor and digitalis, and the encouraging any spontaneous uterine hæmorrhagy that may chance to occur. Accident led me, some years ago, to employ camphor; and since that time, every patient to whom it was possible to give it has recovered. I consider it, therefore, to be the most valuable internal remedy which can be prescribed in such cases.

. . . The digitalis seems indicated in those cases only where there is considerable œdema. I was induced to have recourse to it in Mrs M's case, in consequence of the relief produced by the discharge from the blister.

Upon theoretical principles, spontaneous hæmorrhagy ought not to be suddenly checked; and accordingly several instances have fallen under my notice, where the flooding that supervened to delivery removed the fits; and I have already mentioned, that on two occasions the fits recurred upon the discharge being stopped. One of these cases was witnessed

nessed above four years ago by Mr Dan Dray of Hythe, Kent.

The advantages resulting from pursuing the above plan of treatment, I am confident, will be found to be very considerable. During the fifteen months preceding September last, I attended twelve cases of the disease, (where the fits had occurred previous to my being sent for,) and although, in more than the majority of them, every symptom deemed unfavourable concurred, yet every patient recovered. This number of cases within so short a period, and this success, may appear incredible to those who are acquainted with the works of Mauriceau and Giffard *. But as most of the cases were witnessed by the gentlemen whose names I have already mentioned, (viz. Mr Boote, Dr Meade and Dr Fitzgerald, and also Dr Downes,) who were at that time my private pupils, their authenticity cannot be called in question.

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* Mauriceau, in the whole of his practice, saw only twenty-one cases of the disease, and of these thirteen patients died, and eight were saved. Giffard relates only four cases, in two of which fatal event took place.