

first seen at the Hospital, eighteen hours after the accident, the above-reported symptoms were present. The arm hung by the side as usual, in the characteristic position. There was no change in the surface or contour of the limb. Tenderness over the radial head; supination limited one-third, and accompanied by pain. Other motions of the elbow normal and free. No deviation from the normal anatomical relations of the joint noticed. Reduced unintentionally by supination (elbow extended), while being examined to ascertain the position of the head of the radius. Treatment: sling for forty-eight hours. Discharged well.

CASE IV. — — — aged six, also a patient of Dr. Burrell, was injured by being seized by the left hand, and swung around. Inability to use the arm caused the mother to suspect an injury to the shoulder. Pain considerable, but not located. No especial treatment. Two days later, the father, while "pulling" the arm, felt something suddenly "snap," and the patient's condition was much improved. Seen at the Hospital the following day. Position of arm normal. No deformity or surface change except a slight swelling below the external condyle. There was a slight tenderness and increase of surface temperature at this point. Motion of elbow normal except a slight limitation of supination from muscular resistance. Treatment: internal angular splint, sling. Apparatus removed four days later, and patient discharged. Recovery perfect.

CASE V. — — — aged eleven, was a patient of Dr. G. H. Monks, by whose courtesy I saw the case. On October 3d, 1885, the patient fell eight feet between a wharf and a vessel, into the water. Was seized by the hand, and pulled aboard the vessel. He received an injury to the right elbow, either by striking it on a log used as a "fender," which was floating between the vessel and the wharf, or by a wrench received while being drawn out of the water. He complained of pain, referred to the elbow, tenderness and impairment of motion. The injury was followed by moderate swelling about the joint, with ecchymosis and superficial abrasion on its flexure surface. Treatment: rubbing with liniment. Condition improved. A few days later, after prolonged playing with "clappers," a performance requiring pronation and supination of the hand in rapid succession, the patient became much worse. The pain increased, and motion of the elbow became quite limited. Was first seen by Dr. Monks at the Carney Hospital October 17th, two weeks after the injury. On the flexure surface of the elbow was the fading discoloration of an extravasation in the later stages of absorption, and a few crusts covering a healed abrasion of the skin. Inspection negative, except, perhaps, a slight puffiness under the external condyle. Marked tenderness, and an indistinct "doughy" feel about the head of the radius. Flexion of elbow diminished one-half, extension one-fourth, pronation normal, supination not especially limited, but painful. Diagnosis: subluxation of the radius with contusion, reduced spontaneously and followed by circumscribed periostitis or possibly synovitis, resulting from imprudent or excessive use of the affected part. Treatment: internal angular splint, sling, cold application to articulation. October 19th, the swelling had disappeared, and the tenderness was much diminished. No pain, and arc of motion increased. The patient continued to steadily improve. Apparatus was discontinued five weeks later, and after carrying the arm

in a sling for a few weeks longer, he was discharged nearly well. When last seen, January 5th, 1886, there was some tenderness over the anterior surface of the radial head when the hand was supinated, and a slight limitation of flexion of the elbow. Pain follows excessive use of the joint, but the patient has no trouble if this is avoided.

CASE VI, also a patient of Dr. Monks, resembles Case I so closely that a detailed history is unnecessary. The injury occurred in August, 1885, from the patient being dragged along by the hand. Reduction had already taken place when first seen at the Dispensary. A slight tenderness over the head of the radius was the only abnormal condition found, which soon disappeared, and when last seen, the patient was perfectly well.

## RECENT PROGRESS IN MENTAL DISEASE.

BY HENRY R. STEDMAN, M.D.

### CEREBRAL AND PSYCHICAL DISORDERS ASSOCIATED WITH LOCOMOTOR ATAXIA.

SEVERAL observers have very recently been engaged in working out independently the relations between cerebral disease (structural and functional) and locomotor ataxia.

The fact that symptoms of cerebral disorder as important and varied as vertigo, congestion and epileptiform attacks, aphasia, hemiplegia, etc., are not uncommon in the preataxic stage of tabes led Fournier<sup>1</sup> to the natural conclusion that psychical disorder might also be present under the same conditions. In corroboration of this view he finds in his notes seventeen cases in which mental complications have appeared in this stage of the disease. He reports as samples three of the cases. One was characterized by mental enfeeblement, loss of energy, fatigue on slight mental exertion, together with dulness and depression. This state lasted about a year, and then suddenly disappeared. A second case developed strange fancies, poor memory and a depressed, morose and hypochondrical state of mind with suicidal ideas. These symptoms also disappeared entirely and gave place to others of the usual tabetic variety. The third case was ushered in by two classes of symptoms, namely, disorders of sight and myoses and mental disturbance, almost identical in kind with that of the first case; mental inactivity and enfeeblement. The psychical symptoms were not of long duration and seemed to yield to specific treatment. Several years later a new set of symptoms more plainly tabetic, supervened, and finally tabes dorsalis of the classic form developed. The transient nature of these attacks will be noticed. They may also be compared pathogenically to the motor manifestations of tabes, such as ocular paralyses, etc., which are not uncommon in the preataxic stage.

In addition to these passing attacks there are also permanent disorders of the intellect in this stage. The tabes in these cases is marked by an assemblage of psychical symptoms resembling ordinary general paralysis, or more accurately that instructive group of cases which M. Fournier has described as pseudo-general paralysis of syphilitic origin. Mental symptoms of this kind, however, do not develop at the very outset, but usually after unmistakable signs of the locomotor

<sup>1</sup> L'Encephale t. 4, 1884, p. 641.

ataxia have appeared. Its chief features are, in brief, impaired memory, alteration of character, disposition, habits and morals, finally mental weakness and incoherence culminating in terminal dementia. He reports in this connection a remarkably complete case of what he terms cerebro-spinal tabes of cerebral origin, in which symptoms nearly identical with typical general paralysis ushered in and masked tabes dorsalis which in its turn manifested itself unmistakably, and finally the characteristic lesions of both diseases were found to be well-marked at the autopsy. There are also some very rare forms of transient mental disturbance complicating tabes; witness the delusional mania succeeding the lightning pains of the disease in the case reported by Dieulafoy, the melancholic stupor in the case of Burlureaux, and the melancholic frenzy of another case of Fournier's.

Beatty<sup>2</sup> has also reported within the past year investigations in this direction. His results, though not new, are interesting as corroborative of Westphal's recent results. He states that the study of the deep reflexes in general paralysis of the insane is exciting great interest among a small body of workers, their presence or absence tending to show that there is a close connection between general paralysis and other diseases such as tabes dorsalis, and affording to some extent a basis for classification of a disease which at present includes, in a common description, forms differing clinically and pathologically. Whatever may be the real nature of these phenomena, whether purely reflex, or merely local, the interesting fact remains that whatever increases or diminishes reflex action, generally increases or diminishes the phenomena under consideration.

In sixty-five of his cases of general paralysis, the knee jerk was considered normal in eleven, slightly exaggerated in eight, decidedly so in eighteen, diminished in five, and absent in eighteen. In five cases, the amount differed on the two sides. In the eighteen in whom there was no knee jerk, tabetic symptoms were not marked, being marked by the general paralysis. The latter was, however, in these cases of the demented type chiefly grand delusions, exaltation and excitement being generally absent or far from prominent.

The result of the autopsies in three cases of general paralysis, in which sclerosis of the spinal cord was diagnosed during life by the absence of the knee jerk, was, in each case, distinct sclerosis of the posterior columns of the cord throughout its entire length, extending, in one case, into the medulla oblongata. The sclerosis was most extensive in the lumbar region. He believes that this lesion will be found in most, if not all cases of general paralysis in which the knee jerk is markedly absent, and that although these cases are insufficient to prove a rule, they appear to him to confirm the indication of an organic connection between the two diseases.

Dr. R. M. Canfield,<sup>3</sup> in a recent lecture before the Hunterian Society of London, recalled the fact that Mickle had pointed out the close relation existing between locomotor ataxia and general paralysis, showing that they go hand in hand much oftener than could possibly be accounted for on the ground of simple coincidence. Quite a large number of cases were, he believed, soon to be published by a London gentleman

confirming Mickle's observations. This seemed to him also to point toward the central character of the disease. Wilkes, he believed, had lately discarded the former pathology on grounds previously set forth in this lecture, but went so far as to say that this is no disease at all, but rather a collection of symptoms dependent on no localized lesion, and that they, collectively and individually, occur without any direct significance. Dr. Canfield thought it improbable that such a train of symptoms as we meet with day after day, bearing such a close relation to each other, and following such a decided course as these do, should not be dependent upon some definite pathology. True, the disease may rest upon the borderland of the so-called atrophic troubles, but it seemed to him that we must look to the motor centres themselves for its true genetic pathology, and perhaps we should come to recognize locomotor ataxia as a functional trouble.

#### THE ALLEGED FRAGILITY OF BONES IN GENERAL PARALYSIS.

The weight of opinion has long been in favor of an alteration of the bony system in general paralysis, occurring as an essential pathological element of that disease, and expressed by a marked tendency to fractures. This Christian<sup>4</sup> does not believe, although he does not dispute the diagnosis of osteomalacia in certain recorded cases of general paralysis. He denies, however, that osseous change of this nature forms a part of the systematic *ensemble* of that disease.

The arguments heretofore advanced have been based upon isolated cases and statistics. The employment of direct method of inquiry, namely: microscopic examination of the bony tissue of general paralytics — a simple and easy line of investigation has been strangely enough neglected. The cases hitherto reported he shows to be untrustworthy for want of exact diagnosis. The statistics of the subject are open to the same objection. Old fractures of the ribs are often met with which have occurred before the patient's admission to the asylum, and even before the disease began. Then, also, many are due to external violence, the amount and nature of which are not properly estimated. The different practices in regard to non-restraint in different countries and asylums, is another source of fallacy. Lander Lindsay, who has given special attention to the question, comes to the conclusion that if England is the home of non-restraint, it is also the land of fractured ribs in lunatics. In that country, most of the fractures of that class have been due to external violence. This fact of their frequency is imputed by their English alienists not to undue violence on the part of attendants, but to the diminished resistance of the bones, occasioned by the disease, and consequently osteomalacia is diagnosed. The number of falls which general paralytics meet with in the course of this malady are as frequent as those of a child, and far less easily prevented. No other form of insanity is so prolific (excepting possibly epilepsy), and yet Christian, in his six years and a half among two hundred and fifty general paralytics, has not met with a single fracture in one of these patients. Ingels, of Gand, confirms Christian's statement, and adds that for twenty-five years that he has been in charge of the asylum at Ginslain, he has observed very few fractures, and almost never had he seen them in general paralytics. Morel, for seventeen years in

<sup>2</sup> Brain, April, 1885, p. 64, vol. viii.

<sup>3</sup> Lancet, July 18th, 1885.

<sup>4</sup> Annales Medicales Psychologiques, November, 1885.

charge of the female lunatics at Gand, stated that he had met with *no* case of fracture of the ribs, and only three or four other fractures, one of which occurred in an ataxic patient.

#### GENERAL PARALYSIS WITHOUT INSANITY.

M. Luys has recently made a valuable contribution<sup>4</sup> to the subject of general paralysis without insanity. A somewhat detailed abstract of this paper is necessary, in order to clearly bring out the writer's instructive views on this mooted subject. The article is devoted to that entire class of cases met with, in which are present all the symptoms of general paralysis without insanity, who die in a short time, and reveal at the autopsy lesions which are identical in character with those of general paralysis (such as, for example, the excessive growth of the cerebral connective tissue) but which differ as to the region of the encephalon invaded.

In ordinary general paralysis with psycho-intellectual troubles, such as pronounced delusions, etc., and a train of somatic disorders, the morbid process is confined chiefly to the cortex, the seat of psycho-intellectual activity. The following cases, however, show by the plainest pathological characteristics that when the bodily element only is concerned, when the symptoms are motor ones exclusively, for example, impairment of articulation, purely automatic excitation with *secondary* enfeeblement of the mental faculties, it is not the higher or intellectual centres which are the seat of the disease but far different regions of the brain, namely, the base, those portions which are especially concerned in the expression of bodily acts.

Thus it will be seen that in disease as in health it is possible for these two portions of the brain to act independently of each other.

In the first case we have a woman of thirty-eight years, with no history of syphilis. In a few months she runs rapidly through the purely somatic phases of general paralysis, for while under observation the delusional ideas peculiar to complete general paralysis were never manifested. The malady in her case aborted, as it were. She manifested only the usual train of physical symptoms, tremor of all the limbs and of the tongue, next, progressive paresis attacking collectively the motor powers causing, in a short space of time, inability to walk) and compelling her to lie in bed, and finally complete paralysis of the sphincters. At the autopsy those portions of the nervous system which supply in the physiological state the motive power of the bodily functions were found to be in a state of advanced disorganization. The cerebellum was small, shrunken and sclerosed. Moreover, the sub-thalamic regions of the cerebrum (the locality of red nuclei of Stilling, the gray substance of Sömmerring, the accessory bands) which receive the fibres of the superior cerebellar peduncles and which assist in the transmission of its intra-cerebral nerve force, these regions were the seat of sclerosed indurations which had destroyed the active elements of nervous power. The physical forces disappeared hand in hand with the inroad of the sclerosis and its obliteration of the centres from which those powers spring.

But the effect of the sclerosis of these regions was not confined to motor impairment. It had also led to the destruction of the transmission paths of sense impres-

sions between these centres and the cerebral cortex. This is a complete and adequate explanation of the apathy, indifference and hebetude manifested as the case progressed, keeping pace with the progressive and rapid invasion of a portion of the thalamic region — a region which M. Luys still holds to be the true port of entry for sensorial impressions.

The absence of marked lesions, partial atrophies, etc., of the cortex and of adhesions of the pia mater as well as the rapid progress of the mental enfeeblement confirm the opinion that the mechanism of the dementia must be ascribed to the lesions of the lower but related centres spoken of, rather than to any destructive lesions in the cerebral cortex.

In the second case are found the same somatic troubles of general paralysis also originating in localized sclerosis of the regions of somatic activity at the base of the brain.

The patient was a woman of forty-six, rational on admission, but weak in body and mind, though able to give an account of her condition. The disease had lasted eight months, beginning with severe frontal headache. On admission profound asthenia obliging her to lie down constantly; tremor of tongue and hesitation of speech. She had not one delusional idea. She answered questions correctly, and for three months no sign of active mental trouble appeared, although she had a tendency to insomnia and would leave her bed occasionally. At these times she was a little disturbed and had the nightmare more or less. The mental manifestations were rather those of enfeeblement, her range of ideas being limited. This dementia, only impending when patient was first seen, made rapid progress and was nearly complete five weeks after her admission. At this time the muscular exhaustion was extreme and kept her confined to bed.

Her intellectual obtusion was so great that she could only with difficulty pronounce certain phrases in the form of guttural sounds, but they were correct and relevant ones. At same time and occurring chiefly at night convulsive phenomena developed. From this time these symptoms became rapidly more and more accentuated. The convulsions continued, the mind became almost blank, she required to be fed by tube, but to the last she was able to respond "yes" or "no" to certain questions, thus showing that the perceptive centres of the brain were not yet notably impaired. Manifestations of consciousness still appeared in the form of certain articulated sounds.

At the autopsy there were found no adhesions of the membrane nor marked softening of the cortex, and, in short, there were none of the usual appearances of general paralysis on the cortical surface. But at the base of the brain the red nuclei of the tegmentum and vicinity on both sides were indurated and stiff to the touch. In running the finger lightly over the indurated points their firmness in the less resisting and softer substance was plainly felt. The cerebellum was small and atrophied. The central fibres of the *laminæ* were thin, narrow and filiform, so much so that the central white substance was very markedly reduced. Cerebellar cortex somewhat thinned. The left corpus dentatum was very perceptibly hardened. It had the appearance of a stiff, reddish, embroidered pattern which stood out from the surface of the section. The structure of the pons was firm and indurated *en masse*. The olivary bodies had a wavy and rigid appearance in sections and felt like hard shells, also projecting above

<sup>4</sup> L'Encephale, November, 1885.

the surface of the cut. The bulb and its vicinity, as well as the pons was equally and markedly rigid, indicating the presence of numerous sclerous infiltrations. The surfaces of the fourth and third ventricles were greatly thickened and could be raised in pieces like bits of moist parchment. The subjacent gray substance was softened and intersected by numerous capillaries, careful microscopical examination of indurated parts showed that the fundamental lesion found scattered here and there through the whole extent of regions invaded consisted of an advancing hyperplasia of connective tissue forming in places depots of infiltration.

These observations show that if in certain cases the somatic troubles of general paralysis do not develop with a complete train of ambitions or hypochondriacal delusions. If the morbid process, so to speak, aborts and remains limited to the automatic centres it is because the higher centres of the brain remain comparatively intact and the morbid action becomes localized either in the spinal cord or in the regions at the base of the brain.

Dr. Savage<sup>6</sup> states that he has seen several who for years have exhibited bodily symptoms in every particular coinciding with those found in the patients in his asylum suffering from general paralysis of the insane, and yet without the slightest evidence of insanity, even without any loss of memory or of self-control, so that in fact, the patient was sound in mind although a general paralytic in body. The reason, he believes, that the condition has hitherto been misunderstood is, that asylum physicians rarely see cases in general hospitals; and general physicians only occasionally have the chance of watching true general paralysis. In his opinion, general paralysis may develop in any of its forms without mental symptoms for a considerable length of time, but unless cut short by some intercurrent or accidental cause, mental deterioration shows itself before the end. The symptoms may be only those of weak-mindedness, and may be so slight that comparatively little importance is attached to them.

#### SYPHILIS AND INSANITY.

Contributions to the relations of the above disorders to each other have been unusually frequent of late, the drift of opinion being toward decided scepticism as to the influence of syphilis in cases not only of general paralysis, but also of pure insanity in syphilitic patients. There is also but little difference of opinion as to the efficacy of antisyphilitic treatment in such cases.

The proceedings of a medical society in Berlin<sup>6</sup> a few months ago contain the latest view of this intricate question, and as most of the points involved are presented and by competent observers the account of the discussion is well worth perusal.

Mendel called attention to the fact that the Congress at Copenhagen in 1884, showed plainly enough that opinions still differed widely on the question of the relationship of syphilis and general paralysis. But for several years past observations have multiplied and these relations have become better established through most reliable statistics. It is clear that the statistics of large public asylums cannot be utilized, as patients treated there have their mental faculties, particularly the memory, too much impaired to enable them to say with any accuracy whether or not they have had syphilis ten or fifteen years previously. It is different in

private asylums, for there the family physician, the parent's relatives and friends can give the necessary facts. In this way Reinhard, who is still not a believer in syphilis as a cause of general paralysis, has found that in the upper classes, general paralysis had been preceded in 73.3 cases out of 100 by syphilis, while in the lower classes he had found (probably from inability to obtain reliable statistics) but 16.7 out of 100 cases. It is through relying on statistics that certain authors deny all relation between syphilis and general paralysis, while others are equally confident that every general paralytic is syphilitic. The objections (aside from that of the inefficacy of anti-syphilitic treatment) which Mendel considers at all serious regarding a positive relationship of this kind, is that in general paralysis it is rare to meet with syphilitic lesions in other organs (he estimates that ten paretics out of one hundred will be found to have other organs also affected). But, on the other hand, the same statement holds true in cases of undoubted syphilitic cerebral lesions, gummata for example.

In order to demonstrate the relationship in question, Mendel has had recourse to experimental investigation. He recalled in the first place certain recent experiments in which a dog fastened to a revolving table with the head toward the periphery and subjected to 130 rotations a minute. He died in about half an hour. On opening the head general hyperæmia and meningeal hæmorrhages were revealed. But in the case of an animal subjected to 110 revolutions in eight or nine minutes the process being repeated each day for a fortnight, all the symptoms of a cerebral affection were produced, namely, ataxia, paresis of the legs and of the muscles of the face, trunk and nape, change in his barking, and trouble with the urinary excretion. At death, several months later, after he had run through all the motor symptoms of a general paralysis, the lesions of this disease also were found, namely, pachymeningitis, chronic adhesive arachnitis, internal hydrocephalus and cortical intestinal encephalitis.

By investigations in the same direction Dr. Mendel endeavored to ascertain whether a moderate hyperæmia could not produce the same troubles after the walls of the cerebral vessels had been rendered more permeable. Following Popow, who has shown that corrosive sublimate produces alterations in the walls of the vessels of the cerebro-spinal system, he injected into a dog, each day for about a month, half a syringe of a solution of 0.025 gr. of corrosive sublimate in 50 gr. of water. At the end of that time the animal was subjected to moderate rotation as above described for some minutes. He died four days later, and numerous hæmorrhages of the cerebral cortex were found. Another dog received for the same time three-fourths of a syringe of the same solution and was left undisturbed for two months. He was then given each day from eighty to ninety rotations within three or four minutes. He died in five days with the symptoms of general paralysis. The reader, in applying these results to man, stated that in a large number of cases general paralysis had its prime origin in changes in the cerebral vessels, the walls of which, as had been demonstrated in the majority of cases of general paralysis, had become more permeable and under the influence of an active hyperæmia allowed the blood globules to escape, thus forming the starting of an interstitial inflammation. The vascular alteration may possibly, but by no means certainly, be due in some cases

<sup>6</sup> On Insanity and Allied Neuroses, 1884.

<sup>6</sup> Reported in *Annales Médico Psychologiques*, November, 1885.

to syphilis, in others to the excessive use of nicotine, alcohol, or mercury. This hyperæmia which these antecedent changes make possible and which give rise to the cortical lesions of general paralysis, may be due to excessive emotion, traumatism, intense heat, etc. Here we have all the factors which are necessary for the production of general paralysis.

It should not be surprising that no benefit follows syphilitic treatment in cases of this class, as the lesion is not a pure specific alteration but merely an inflammation resulting only partially from syphilitic change.

Dr. Westphal dissented from these views. He placed no value whatever on statistics, and declared that it was extremely rare to find syphilitic lesions at the autopsies of the insane, no matter what the form of mental disorder, and that the proportion of ten in one hundred was far too great. As, on the other hand, there were no characteristics by which syphilitic changes in the cerebral vessels could be recognized, all conclusions on the subject were premature. Moreover, Dr. Mendel had said nothing regarding the calibre of the vessels affected. The larger vessels were almost never involved in general paralysis, and as to the smaller ones, he had not even described the alteration they underwent, which was probably an hypertrophy of the tunica adventitia, a change which occurs under a variety of circumstances and which has not the influence upon the circulation which theory ascribed to it. As to violent emotions they figure as an etiological factor, not only in general paralysis, but in a number of other forms of insanity.

## Hospital Practice and Clinical Memoranda.

### FOUR CASES OF PLACENTA PRÆVIA.

BY OLIVER S. LOVEJOY, M.D., HAVERHILL, MASS.

CASE I. October 23, 1883, I was called in great haste to see Mrs. X., who was said to be flowing more than was good for her and needed assistance at once. The patient, I was informed, was about six or seven months along in pregnancy. She recently rode some twenty-five miles over a rough road, and had commenced flowing before she reached home. On examination found the placenta in the bed, but the child had not been expelled from the womb. The flooding had entirely ceased though there was a large quantity of blood in the bed. The womb had closed quite firmly over the child's head, and it occupied some time to remove the fœtus. This mother was well-developed, healthy and strong, and had had one child some two years previous. Had a good getting up and was none the worse for the loss of blood.

CASE II. January 6, 1884, had been to some distance to visit a patient and was on my way home, when called into a house I was passing to see a sick woman. The husband kindly informed me he guessed there was not much the matter, only the wife was a little nervous and thought she ought to see a physician. The woman was in bed; said she expected to be confined in a few weeks but did not think it was then time; had no labor pains but was flowing badly; had had one or two hæmorrhages before, but not so severe. She was a large woman, weighing about two hundred pounds. This was her sixth or seventh preg-

nancy, all former labors had been natural. On examination of the bed I should have said two or three quarts of blood had been already lost, though I was informed there were two gallons or more. On farther examination per vaginam, the placenta was found to cover the os completely, which was open to the size of a silver dollar, not rigid but flaccid; no membranes could be felt. The finger was passed through the centre of the placenta and the membranes ruptured. A very large amount of water escaped, immediately followed by a loop of the cord and hand and arm. I attempted to return the cord and arm, but most signally failed, and as the mother resisted every effort to do so, I sent to the city for an assistant and ether.

Very little hæmorrhage after the escape of the water. I plied the patient well with Squibb's fluid extract of ergot, but could get no labor pains. After assistance arrived I found the placenta hanging out of the womb. Removed it entire and separated the cord. Then without the use of ether turned and delivered. The child weighed something over ten pounds. On the fourth or fifth day after delivery called to see the mother and found her sitting up knitting a sock for one of the older children.

CASE III. August 13, 1884, was called to Mrs. X., in labor. Had visited her one month previously, at which time it was supposed labor had commenced. She was flowing badly at this first visit, and I was informed three or four floodings had occurred previously varying in time from two to four weeks. When I arrived at the bedside, found she had fainted dead away, and the bed was literally soaked in blood. Here was an entirely different case from the others, it being the first pregnancy and the patient a little bit of a woman, who in her *best estate* never weighed over ninety pounds, could ill afford to spare any blood, and was pale and chlorotic at all times. The womb was but slightly open and the placenta firmly adhered about the os. The pains irregular, occasionally quite firm, then weak or entirely absent. In this case, as in the preceding one, the cord prolapsed and had ceased to pulsate. The child being evidently dead I concluded to deliver as soon as possible. I attempted to apply the forceps but the womb was not sufficiently open to do so. Opened the child's head and delivered. The mother was extremely prostrated from the great loss of blood, but before I left the house reaction had taken place and she did very well. Ether was given by an assistant.

CASE IV. November 6, 1884, 6 o'clock, A.M., received a note asking my assistance as soon as possible in a case of placenta prævia. The patient, a woman of some twenty-six or twenty-seven years of age, was in labor with her third or fourth child. She had had no pain and the womb was but slightly open. The flooding at this time was not as profuse as it had been at an earlier stage. The foot of the bed had been raised and the vagina was full of large firm clots of blood. The bed was full of blood, a large-sized vessel was one-fourth full, and I should think there was three pints in a slop-pail. The foot of the bed being raised had allowed the blood to flow back and there were not many dry threads in the garments on her person. She was plied with ergot and brandy as long as the stomach would retain them, and had fainted a number of times, and was almost pulseless. The cord as usual was prolapsed and had ceased to pulsate before my arrival. The os at this time was open to the size of a