by pulling down the vermiform appendix. To account for the pouch, we must suppose that the commencement of the ascending colon, in passing on to a lower position than the cecum, had carried with it the small extent of loose peritoneum then lying on its left, between it and the ileum; thus dragging a portion of the ileum down, and covering it and the cecum with a hood.

ART. XI.—*Injuries of the Head.* By R. J. KINKEAD, A.B., and L.M., T.C.D., L.R.C.S.I., and L.M., Tuam, County Galway.

I. BULLET WOUND OF SCALP—RECOVERY.

II. CONGESTION AND IRRITATION OF BRAIN AFTER INJURY SIMULATING HYSTERIA.

III. LOSS OF THE GREATER PART OF THE VAULT OF THE CRANIUM —RECOVERY.

INJURIES of the head are, perhaps, the most interesting, and, at the same time, most paradoxical cases that come under a surgeon's notice.

The skull, containing, as it does, one of the great nervous centres, one leg of what has been described as the "tripod of life," has a very important office, the guardianship of the most delicate and sensitive organ in the human body.

When we consider the close connexion that subsists between the external and internal structures of the head, the complex nature of the functions performed by the brain, the exquisite regulation of pressure necessary to a due performance of its duties, and the fineness of the boundary between health and disease, the great importance and intense interest of injuries of the head are at once manifest. The wonder is how it can be injured even slightly, and serious consequences not ensue.

Yet in this the paradox consists, that in no given case from the slightest blow to the most severe injury can the surgeon predicate a certain result. The most trivial injury may be followed by death, whilst from an accident which would have been thought incompatible with life, not even a bad symptom may follow.

The variety of symptoms arising from injury of the brain substance, adds greatly to the interest of these cases.

Owing to the extensive distribution of cerebral nerves, to the fact that from origin to final extremity, each nerve-fibre is a complete

separate existence, commencing from no parent trunk, although, perhaps, joining with others, to form what is usually called a nerve, keeping distinct its own individuality, transmitting direct to the brain each sensation, and being reacted on by the brain in turn, a thorough knowledge of the anatomy of the nervous system is absolutely necessary.

The exact local origin, what portion, what "tract" of the brain, each nerve springs from, its course and relations, what branches it gives off, to what parts, to what organs it is distributed, where are its ultimate terminations, what its character, its vocation, whether motor or sensitive, what symptoms would be likely to follow evil at its origin, or irritation at its extremity, must be known, and known thoroughly, in order to treat such affections skilfully. To form a correct diagnosis is, in many cases, most difficult; no class of disease is so easily simulated as the nervous, and, again, the most opposite causes will frequently produce the same effects. Too great pressure and too little, will give rise to similar symptoms, and those too the salient ones. Depressed bone, extravasated fluid, a foreign body in the brain, may occasion convulsions, coma, and stertorous breathing. Hindrance or obstruction of the cerebral circulation may have a similar effect.

I may be pardoned if wandering from the subject. I relate a case that occurred in my own practice, a couple of years ago, which illustrates the foregoing statement, and also points out that we should not form our diagnosis from one or two symptoms, but from all the circumstances of the case, as well as from the signs of the disease. I believe there is no better plan of making a true diagnosis, and at the same time educating the memory, than in every case marshalling before the mind, all the diseases or injuries that might give rise to the symptoms present, and then examining each one to show cause why it is not the offender.

I was summoned one day in a great hurry to see an old lady who had been "seized with a fit" (she had had "a stroke" of paralysis about three years previously). I found her on her bed perfectly unconscious. I pinched her arm, pulled the hair on the temples; no sign of feeling was shown; the pupils were insensible to the stimulus of light, the breathing stertorous, the surface of the body was cold, the pulse feeble and fluttering, no signs of congestion about the head, on the contrary it was paler. I ventured to hazard the opinion that she was not suffering from apoplexy (which was the notion previously entertained), and was laughed at; however, I applied mustard

blisters to nape of neck, stomach, over the region of the heart, inside of thighs, and hot bottles to the feet. After a time, seeing an inclination to vomit, I had the patient turned on her side. She discharged the contents of her stomach and a large quantity of wind, and presently revived. I am happy to be able to state that she is alive, and in good health, at the present date. She had eaten an apple; her mastication being bad, the apple, instead of being digested, stayed in her stomach, and generated wind; the inflated stomach impeded the heart's not over strong action, diminished the supply of blood to the brain, and hence those symptoms which so closely resembled pressure on the brain.

The following cases need no apology for being laid before the notice of the profession. Two of them, at least, possess considerable interest; one I believe to be unique; another is not out of the run of ordinary wounds of the scalp, but helps to illustrate the uncertainty of issue that attends injuries of the head.

On the 27th of March, a Colt's revolver was fired at the yard-door of an empty house from the top window of the next one. The window was distant from the door about fifty yards.

The ball passing through the door, which was half inch thick, took effect in the head of a man, who happened to pass at the moment the pistol was discharged; he was, when struck, one and a-half yard distant from the door.

The ball entered a little above, and posterior to the junction of the occipital, parietal, and temporal bones on the right side, in which position I felt it quite distinctly, lying against the skull.

Having cut down and extracted the bullet (which, by the way, was perfectly flattened), there was some smart hemorrhage from a small artery. Not being able to pass a ligature round it without enlarging the wound more than I cared to, I determined to use acupressure in order to stop the bleeding (which was active enough); whilst waiting for a needle I passed the point of a tenaculum either through or as near to the bleeding vessel as possible, compressing it sufficiently against the scalp, to stop the flow of blood. On withdrawing the instrument (after about five minutes), there was no return of the bleeding. The wound united by the first intention. About ten days after the injury a little pus was discharged, occasioned by a slight exfoliation of the bone. The man recovered without a single bad symptom. The short time pressure of the tenaculum was used, being sufficient to arrest the hemorrhage, is

worthy of notice. The calibre of the artery, judging from the jet of blood, was about that of a crow-quill.

I was asked on the 15th of October to go see a girl, aged nineteen, who had been beaten the day before. I received the following history of the occurrence. The house had been attacked, set on fire, &c., a few days previously. On the evening of the 14th of October, between six and seven p.m., the girl went out to keep watch about the place whilst her master and mistress were at tea, taking for her defence an old court sword, set in a heavy wooden handle. In the avenue she was met by a man, who first hit her over the left eye, and then wrenching the sword from her, struck her over the head with the handle, knocking her senseless against a wall. She could not say how long she remained in that condition, but on recovering her senses the man was gone. She walked into the house, was brought to town, a distance of a mile, and then by the police to the magistrate's house, about another mile out of town. She gave her informations before the magistrate in a very clear and intelligent manner. She had been in her present situation two years, with her master's son-in-law for three years previously, during which time she had never been ill or complained of any sickness or pain save toothache. Had menstruated regularly for some time; had been "unwell" about a week or ten days before she was beaten.

She had a mark over left eye; a blow struck with the side-face towards the striker, would be likely to cause such a wound. It resembled more the blow of a stone than of a fist. There was also a slight swelling on the top and posterior portion of left side of scalp; very great tenderness on pressure; very great pain at epigastrium, with excessive tenderness; face flushed; tongue foul and dry; pulse slow and feeble; pupils quite even and act readily; no squinting; slight headache; intellect clear.

Sudden spasms come on about every ten minutes; a gasping cry; hands suddenly clasped; eyes tightly shut; angles of mouth drawn down; body slightly arched forward, and shake so violently that the very bed vibrates; after about half a minute or so hands slowly unclasp; body first arches back and then sinks on bed; a sighing expiration, and the fit is over for the present. She says that the gasping cry is occasioned by agonizing pain, shooting from ensiform cartilage to spine, which seizes her just as the fit begins; complains greatly of her heart, and a difficulty of swallowing.

16th.—Face more flushed and anxious; bowels not moved; pulse slow and full; tongue covered with a white fur; passed no

water since morning of 15th. In the evening, as no water had been passed for thirty-six hours, introduced a catheter, and drew off a small quantity of high-coloured urine; spasms every five minutes; heart's action tumultuous. *Tr. digitalis mx. tertiis in horis.*

17th.—Has not slept; mind wandering; on passing the catheter, although the urine at first flowed slowly through it after about a wine glassful passed, had to make considerable pressure on the abdomen to get the rest to run through the instrument; drew off about a pint; colour rather high; smell heavy; blister (mustard) to back of neck.

18th.—Better for a few hours, but got worse towards evening.

20th.—Passed a bad night; raved considerably; spasms continuing to recur every five minutes; great pain and tenderness at epigastrium; urine scanty; high-coloured; specific gravity, 1.018; tongue clearing; ordered blister to back of neck.

21st.—Something easier; blister not applied; tongue clean; spasms as violent as ever; blister to back of neck; leeches behind ears; is apparently salivated, although she got no mercury, save two doses of calomel and jalap, both of which operated.

22nd.—Slightly better.

23rd.—Much worse; raving more; tried several times during the night to throw herself out of bed; saw "things creeping on the wall;" blister back of head; and large dose of magnesia sulphas.

24th.—Better; spasms less in number; continue salts.

From this date she gradually got better, losing by degrees a confused giddy feel, and slight headache, which annoyed her for some time after her convalescence.

Treatment.—At first anti-spasmodics, cold lotions to head, and purgatives; then blisters to head; leeches and purgatives; all through, beef-tea.

There is, indeed, an intense interest in following a track through a maze of fallacy, a keen sense of enjoyment in the intellectual struggle, when all the powers of the mind are on the stretch to distinguish facts from fancies, truth from falsehood; and, although, where the witnesses, so to speak, for a comparatively harmless affection, and a grave disease threatening life, are in many cases nearly identical, there is a sense of weighty responsibility; the knowledge that on the correct decision hangs, humanly speaking, the future welfare, nay, in many instances, the life itself of the patient, this knowledge, I say, and this very responsibility, gives an independent self-reliant feeling, a sense of power that

amply repays the care and anxiety it exacts from us, and when, with God's blessing, we have decided rightly, and rescued a fellow-creature from death, a human being from a life of suffering, we have our reward, in a sense of happiness, an exquisite exultation, that I believe members of no other profession can feel.

This case seems to me of much interest. The slight signs of external injury, the serious nature of the symptoms, then the very peculiarity of the symptoms making the case doubtful at first, but when thought over, examined and sifted in the mind, gradually unfolding, dispelling doubts, and finally making the diagnosis more convincing, from the victory over the very misgivings they had at first started.

I was at first inclined to believe the case to be a purely "nervous" one, that the fright of the attack and beating acting on a mind, already agitated by former excitements, had given a severe shock to the nervous system. The usual symptoms of intracranial mischief were absent. There was no active delirium, no severe and constant headache, no squinting, no unevenness of the pupils. The pulse was slow and feeble; the pupils acted on the stimulus of light. There were no ordinary convulsions, nothing but the spasms, the intense pain from ensiform cartilage to spine, and the gasping cry when the fit was coming on. The next day hysteria came into the field of probabilities; but that evening and the following day routed that idea. The mind began to wander; the persons she had been daily in the habit of seeing were not known. She talked a little at times to herself; the fits were quite as bad when she was left alone; the urine was not hysterical, it was scanty, and of high colour. There appeared to be a total loss of power in the bladder; so much so that it required considerable pressure on the lower part of the abdomen to expel the water. After careful consideration and study, I came to the conclusion that she was suffering from congestion and irritation affecting chiefly the cerebellum, but slightly implicating the cerebrum also.

The spasms chiefly confined to the muscles, supplied by the pneumogastric. The remarkable slowness of the pulse, a slowness in speaking as if a want of power to articulate, was combined with a difficulty in collecting and arranging her words; the delirium resembling that of continued fever, rather than of active inflammation, and the marked improvement, following blisters to the back of head, and large doses of sulphate of magnesia, confirmed my opinion.

M. S., aged seventy, unmarried, called on me *at my own house*, on the 10th of last September, to consult me about what she called a "sore head."

History.—Catemenia have ceased some fifteen or twenty years; enjoyed good health till about ten years ago, when, "owing to trouble," she got epileptic fits for first time. The fits recurred about once a month.

About three months before the date of the present visit, (sometime in the month of June), whilst reaching for some article on the chimney-piece, she was seized with a fit and fell into the fire, striking her head, as she fell, against the hob of the grate; the head was burnt very severely, and having applied "many sorts of plasters," and the sore not healing, she at length came to me.

When she removed a most ingenious front of her own devising and the dressings, I saw, what she called a "sore!"

The integuments covering the top of the head were entirely gone, save a small isolated portion situated on the posterior part of the right parietal bone, separated from the living coverings of the head by a line of large flabby granulations, which, encircling the skull, cut off the denuded dead bone from the live integuments; included by this line were nearly the whole of the two parietal parts of the frontal and occipital bones, the isolated portion of the scalp before alluded to, and a small piece of pericranium dry and shrivelled, closely resembling old parchment; with this exception the bones were perfectly bare, quite dry, and warm to the touch.

On the right parietal bone a fracture running parallel to the sagittal suture, and sending off a branch which crossed it, was distinctly to be seen.

The granulations bled on being touched, and exuded healthy-looking pus. There was a rather fetid odour.

Since the accident, she had not had a single bad symptom. She said "she would be all right if the head healed up, as the discharge annoyed her."

The fits had not recurred.

Tongue was red, dry, and glazed down the middle; stomach rather irritable; pulse about 90 to 95, and weak; bowels inclined to be costive; appetite tolerable. She came to my house weekly, till the 7th of November, during which time the process of separation went on gradually.

On the 17th of November I was sent for, to see her for the first time in her own house, and found that while her sister was washing

the head, it being stooped over a basin, the calvarium had glided over her face into the vessel, leaving bare the dura mater, covered with healthy looking granulations, and perforated with three or four small holes, through which the brain substance could be seen. The portion of bone which came away consists of a small piece of the frontal, almost the entire of the two parietal, and a bit of the occipital bones. It measures seven inches from before backwards, and nearly five from side to side at its broadest part. (It is now in the museum of the Adelaide Hospital).

The raw surface left exposed has healed up wonderfully, and is at present almost entirely skinned over. The tongue has become quite healthy in appearance, the pathway down the centre being gone. The pulse has fallen to about 75, and got soft and full; the appetite greatly better; and the appearance of the patient is improved. She has picked up flesh, and is able to go about the house, and is only kept in by the inclemency of the weather.

She suffered a good deal from neuralgia, whilst the bones were separating. The treatment was very simple, a weak solution of chloride of lime to the ulceration, and some pills to keep the bowels regular. After the calvarium came away, at first simple dressing, then weak citrine ointment (1 part to 8), and touching the granulations once or twice a week with nitrate of silver. Good nourishing food and exercise in the open air; whenever the weather permitted, were ordered; all stimulants were strictly forbidden.

When only a portion of the bone had separated, a distinct pulsation could be seen, but when they came away entirely, I could perceive none.

Comparing these cases we find some rather inexplicable results. In two of them the injury was very similar, the situation of the wounds on the heads being very nearly alike, viz., the posterior portion of parietal bone in one, and the upper and posterior in the other. In the one which, from the nature of the case, one would have thought the greatest violence was offered, no bad symptoms showed themselves; in the other very grave ones set in.

Can it be that the young brain is more obnoxious to inflammatory attacks, as a result of accidents, than the old? Why should the cerebellum have been implicated from a blow on the top and back part of the head?

Again, in the third case, there is an injury which *a priori* would have been judged necessarily fatal. The extensive lesion over a cavity containing so delicate an organ as the brain, complicated by a

blow, causing a fracture, the exfoliation of so large a portion of the skull, and the cicatrizing of the raw surface underneath, I believe to be unprecedented.

The entire absence from first to last of a single bad symptom.

The cure of the epilepsy of ten years duration.

A sensation of lightness and giddiness which was felt after the bones came away, disappearing as the wound healed, owing to the contraction of the cicatrix, compensating for any pressure that may have been lost, is worthy of remark.

ART. XII.—*American Contributions to the Study of Cutaneous Neuroses.* By H. S. PURDON, M.D., L.R.C.P.E.; Physician Belfast Dispensary for Diseases of the Skin; Assistant Physician Belfast Charitable Infirmary, &c.

Neuroses of the Skin.—In the early part of last year a distinguished American dermatologist, Dr. Howard F. Damon, published a monograph on “Neuroses of the Skin,” which work has been favourably mentioned by Dr. Brown-Séquard.

In the introductory chapter our author informs us that neuroses of the skin are caused by peculiar conditions, either of the sensitive or of the vaso-motor nerves. The sensibility of the former may be exalted or diminished to a variable extent. Spasm and paralysis are the peculiar forms of derangement of the vaso-motor nerves.

The first disease treated of is “Dermalgia,” manifested in the form of tenderness, or increased sensibility to touch, and is generally confined to a limited portion of the skin. Sometimes, however, it involves the integument of one side of the body—usually the left—or even the whole skin. “The skin is either painful to the touch only, or the pain may be spontaneous and independent of contact with any sensible object. In other instances a draught of air may be sufficient to excite this pain, or the threatened contact with any material substance. Dermalgia appears to be of two kinds as regards cause—the hysteric and rheumatic. That form which is associated with hysteria is usually confined to the left side, and is often extensive; sometimes, however, only small areas of the skin are endowed with this exquisite sensibility to external impressions. These are veritable neuralgic spots. . . . This irritation may have its origin