substance. A section from a nodule upon the heart showed the same material infiltrating the muscular fibres. And in one from the root of the lung the pulmonary tissue was infiltrated with similar small cells. There can be little doubt, I think, that the tumour was a sarcoma, commencing in the mediastinal connective tissue, spreading by continuity along the pericardium, pleura, and heart; in each case being more developed where more connective tissue naturally existed, as along the vessels, costal pleura, etc., but also infiltrating the subjacent tissues.

TWO CASES OF *POST PARTUM* HÆMORRHAGE TREATED BY THE INJECTION OF PERCHLORIDE OF IRON.

By W. P. SWAIN, F.R.C.S.,

Surgeon to the Royal Albert Hospital, Devonport.

WITHOUT wishing to fan into a flame the dying embers of controversy on the subject of the injection of perchloride of iron in *post partum* hæmorrhage, I desire to put on record the two following cases which have occurred in my practice during the last six months.

CASE I was that of an exceedingly fine, handsome lady, a primipara. Her pregnancy had been uninterruptedly good. Labour commenced on the evening of January 21st. The presentation was normal, the pains good, and a fine male child was born about half-past seven on the morning of the 22nd. I gave a small quantity of chloroform at the last. Immediately after the delivery of the child, I found a second head presenting, and, as the pains were not very expulsive, I put on the forceps and delivered a second male child in a few moments. I then removed the placenta, which was single and of enormous size. Considerable hæmorrhage occurred at the moment the placenta was expelled, but the womb contracted firmly, and a binder was put on. Within a few minutes, however, I found the uterus largely expanded, and, on pressure, a huge clot was expelled. I immediately introduced my left hand into the uterus, making pressure externally with the right, but was unable to produce any uterine contraction. During the whole time there was a constant and excessive flow of blood from the vagina, and the patient became collapsed. I administered brandy in large quantities and ergot, and the moment ice could be obtained I placed a large lump in the cavity of the womb, and a bag of ice on the abdomen. All was, however, of no avail, and my hopes of saving the patient were at zero. In the mean time, I had obtained further professional assistance, and, with the concurrence of my father and Mr. Whipple, I injected perchloride of iron into the uterus, in the manner advised by Dr. Barnes. From the moment of the injection all flow of blood ceased, although the uterus remained for some time flaccid. The lady made an excellent recovery, and, with the exception of a little lymphatic tenderness in the right thigh, complained of nothing during her convalescence. I should mention that, on the second day and on every succeeding day for some time, the vagina was thoroughly well syringed out with Condyl's fluid and water.

CASE II. I was asked by Surgeon-Major Ferguson to see at the Women's Hospital, on July 9th, a soldier's wife in her third pregnancy. She had a contracted pelvis in its antero-posterior diameter. In her first confinement she remained a hundred and eight hours in labour; in her second, eighty-seven hours. No instrumental assistance was afforded on either occasion, and the children were still-born. This time she had been in labour sixty hours, and I found the head well down on the pelvis, but tightly fixed there. I suggested the application of the forceps, and in a very short time, after the use of considerable traction, the child was born alive, but lived only for half an hour. The placenta was removed at once without difficulty, and the uterus contracted for a short time, but in a few moments tremendous hæmorrhage set in, the blood being projected from the vagina on to the floor some distance from the bed. I immediately passed my left hand into the uterus, cleared out its contents, and endeavoured to secure contraction, whilst cold water was poured on to the abdomen from a height, and brandy freely administered. This, however, did not correct the bleeding, although it somewhat lessened in quantity. Feeling that another gush of hæmorrhage might be fatal, I injected the perchloride, all the materials being fortunately at hand. The uterus at once contracted, all hæmorrhage ceased, and I hear from Dr. Ferguson that the woman has made an admirable recovery.

I think I may fairly claim two lives for the perchloride treatment. In the first case, all the usual resources, excepting galvanism, were tried in vain; the lady lay dying before our eyes, and there can be no doubt that any further hæmorrhage must have turned the balance against her. In the second case, so rapid and so large was the loss of blood, that nothing short of immediate arrest could have saved the patient; and this the perchloride certainly effected.

LEAVES FROM MY DIARY DURING THE ASHANTEE WAR.

By ALBERT A. GORE, M.D., F.R.C.S.I., Surgeon-Major,
Late Surgeon 34th (Cumberland) Regiment.

VI.—THE CLOSING DAYS OF OUR VOYAGE.

THE night after leaving Sierra Leone, we passed the mouth of the Sherborough, which, with the Mesurado, are the only two considerable rivers entering the space intervening before the commencement of the Grain Coast of Guinea is reached—a distance of some two hundred miles. At the mouth of the former are the Plain Islands, the residence of the Chief of the Kossoos; and on its banks are found a species of pearl-oyster. The Mesurado is a larger and more rapid stream, with finely wooded and fertile banks; according to the natives, taking three months to ascend to its source. We were now steaming by countries whose states are entirely negro in religion and manners, and their sovereigns absolute as a rule. Next morning, September 7th, was fine but clouded; a light wind was blowing from the south-west; and already we were beginning to feel the long swell which was rolling in in great waves from the Atlantic. As the day advanced, it became more sultry, the hygrometer reading 78 and 83 deg. in the shade on deck at 3 P.M., where we had now commenced to breakfast and dine, the cabin being far too close. We passed Cape Mount, forty miles west of Monrovia, at 8 P.M., anchoring, at 1 A.M. in the morning of the 8th, at Cape Mesurado, which, as the sun rose, appeared as a stunted promontory, apparently about two hundred feet high. Two or three houses surrounded by coffee-plantations, and a light tower above, were visible from the deck of the steamer. About a mile to the left was the mouth of the river; and, on an island there, Monrovia, the capital of Liberia, a settlement formed by the Americans in 1820, with the object of obtaining an asylum for liberated negroes. The territory is said to be healthy and fertile. A few Kru canoes could be seen creeping along the shore in the dull and clouded early morning, which just before had been wet and raining, the bulbs reading 74 and 76 deg. in the shade under the dripping awning at 7 A.M. A hazy but very beautiful moon had been sufficiently indicative the night before of the coming day. We lost here another of our passengers, the Netherlands consul, who was returning to his factory on the river. While on board, he had told us many amusing stories of Liberia and the Gold Coast, where he had been several years. From all we heard, the Society of the African republic must have been very peculiar. Cape Mesurado is two hundred and sixty miles from Freetown. At times, the surf breaks here with such violence, that landing is extremely difficult and dangerous. Just before leaving at 10 A.M., our Krumen had had an exciting chase after one of their number, who had absconded in a shore-boat, getting into the bush before them; they failed to catch him, much to their chagrin and our captain's annoyance.

The Grain-Coast (so called from the grains of paradise or Malaguetta peppers, *Anomum grana paradisi*, whose scarlet pods grow here in abundance, and were largely exported to Europe in the sixteenth and seventeenth centuries) which we were passing, appeared as a fringe of lowland, with a series of ridges or undulating paps four or five hundred feet high, and some miles in the interior. We could see the spray of the surf on the beach quite distinctly from the deck of the steamer.

From here to the river Volta, there is very little difference in the nature of the soil; within five or six miles of the shore it is silicious, the hills met with in every direction being composed principally of gneiss and granite, mica-slate entering into the composition of some at no great distance. Under the long continued influence of air and moisture, these are rapidly passing into decomposition, the carbonic acid in the water removing the potash from the feldspar and mica, the water afterwards separating the silicate of alumina and quartz, the former being soon washed away and deposited, forming the clayey or argillaceous soil mixed in the hollows with the decayed vegetable or animal matters which abound, giving rise to those rich alluvial valleys in which the natives delight to make extensive plantations. Such washings are rich in gold, which exists in very minute grains in the white, red, brown, or amethyst-coloured quartz, the sand found in the inner valleys being nothing more than very small grains of silica and quartz. Limestone is absent, but the number of fossil and other shells amply compensate for the want. Under the improvident system of agriculture adopted by the natives, the mineral food contained in the soil is soon exhausted, and it becomes barren in consequence of no manuring being attempted or any substance added which would serve directly as food for the plants, which are the same year after year, and removed to a distance for export or consumption. The sesqui-

oxide of iron is not nearly so abundant as in the soil of the upper coast. These characters of the surface-coating are reflected in the waters which flow over it, and which are rich in vegetable organic matter, and in the products of animal decay when in the vicinity of the filthy native villages. Flooded in the rains with the overplus of the neighbouring (up to these) stagnant marshes, they must be as laden with the malarial poison as they are coloured with the blue, white, or brownish yellow clays stirred up from the bed or washed from the hollow tanks, the mica in which sparkles like gold. Near the sea, the surface-wells are largely impregnated with chlorides, derived from saline sands or sewage, a mineral constituent only faintly indicated in the inland streams; lime-salts (as might be easily inferred from the nature of the primary rock) being also absent, except in very minute quantities.

As we steamed along, a few rain-clouds and passing showers could be seen darkening or floating over isolated spots on the land; at night-fall, vivid flashes of lightning played round the hill-tops. As seen from the deck of the steamer, the effect was extremely pretty. It rained heavily until daybreak of the 9th. As the sun rose above the horizon, the sky was clouded, a light breeze was blowing from the south-west; at 7 A.M., there were only three degrees between the temperature of the air and that of evaporation. Just as we found ourselves opposite Grand Cess, a large Kru village, we could just see a number of huts, with their brown conical grass roofs, packed closely together; not a soul was to be seen. The site of the village was a level spot, a mile or two in length, with the same undulating paps in the distance. To the right appeared a long ridge of discoloured granite; a small white flag was flying near the beach. After we had fired a gun, and waited some time, a solitary individual appeared on the shore, followed shortly afterwards by another. After having a good look at us, they condescended to get into a small canoe, and put off in reply to our summons. Like others of its kind, the little Kru canoe was long and narrow, barely capable of holding two men, who, seated upon their haunches, with their legs extended before them, usually up to their hips in water, paddled with much dexterity, stopping for a moment every now and then to bale out the contents. Our object in communicating with the shore was to get Krumen for Captain Glover's little steamer, which had already sailed from Ireland. The same heavy swell was rolling in and dashing upon the shore, the little canoe alternately appearing and receding from view as it neared the steamer. One of the occupants, a late head Kruman on board a man-of-war, was quickly informed of our wants, which he promised to supply by the time the steamer called, on getting a "book" from the "Governor," the name by which Captain Glover was generally known along the coast. When leaving, he begged hard for a piece of pork and bottle of gin, both of which were given him by our good-natured commander. This is the usual method by which the "boys" are collected and forestalled along the Kru shores. Previously bespoken, they are shortly collected and subsequently shipped to their several destinations. A mile or two above could be seen Little Cess, between whose inhabitants and the village, we were often communicating with, there was a deadly feud, or woman "palaver." Only a short time previously to our visit, two of the Grand Cess Lotharios had been killed in the bush while attempting to steal some of their neighbours' wives, showing how much in request were the gentler sex in this very primitive part of savage Africa.

The influence of the land upon the trade-winds and the intervening calms is very powerful upon this seaboard and side of the Atlantic; and the peculiar configuration of the coast of Guinea, tending, as it does, along the very axis, or line of division, of the northern and southern land systems, causes a different set of phenomena to arise. During that part of the year when the sun is in the southern hemisphere, the trades and calms follow the usual or normal course, as it is then exerting its maximum of force on the sea, with its low absorptive and radiating powers; but when, during the northern summer, it is raising the temperature of the land of the Guinea coast, a new phase arises, from the heated atmosphere over the land drawing the wind towards it, and instead of south-east or north-east winds, we have a south or south-west occurring with great regularity between Cape Verde and Cape Mesurado. From September to June, there is a north-east or north wind; in the rest of the year, a south-west wind; in effect, a monsoon.

From the twentieth degree of north latitude to the environs of the line, the months of July, August, September, and October are those of the rainy season, when the atmosphere emits its waters to the earth; the only difference is twenty days sooner or later in the arrival of these torrents, the rainy season always commencing at each place on the west coast to the northward of the equator, when the sun passes the zenith of that particular spot in his course towards the north, during the month previous to which the change of weather usually commences; the latter, or little rains on the Gold Coast, being the showers which accompany the southerly winds blowing along the coast during the month of

November. On the windward coast, from Cape Mount, which we had just passed, to the river Assikee, where the gold shores commence, from January to May, the weather along the seaboard is constantly fair and clear, with cooling breezes and gentle southerly winds; but about the middle of May, south and south-east winds begin, accompanied not only with hurricanes and stormy gusts, but also with thunder, lightning, and great rain, which continue, more or less, to the conclusion of the year. From the Assikee to the Volta, the wind in January begins to blow from a south-west direction, becoming stronger in February, bringing with it sometimes rain, sometimes a hurricane. About the end of March and beginning of April, those heavy tempests occur, called by the Portuguese "tornados;" these continue to the end of May. During the rainy season, May to July, little or no land winds are felt, but from the sea it blows from the south-west and west-south-west, making a very great swell, which continues even in August, although the rains begin to cease in that month. The weather becomes fine in September, and the air clear with gentle southerly winds, and this continues until January, the hottest days being in December, on the Gold Coast as well as on the windward coast. The range of the thermometer is not great as a rule; but it has fallen as low as 66 deg., and risen as high as 95 deg. in the shade in the air, the mornings, up to 6.30 A.M., being cool and agreeable, the mercury rarely rising above 75 deg. or 76 deg. Fahr. The average heat throughout the year is about 82 deg., the maximum rise in the black bulb 156 deg., and the rainfall about 120 inches. The tornadoes, or thunder-storms, last in greatest violence from fifteen to twenty minutes; preceded by a calm dead heat, they are followed by deluges of rain, and later still by a deliciously cool atmosphere. The dry season commences later and later at each intermediate place towards the equator, beginning at the Senegal as early as the latter end of October.

As we approached Cape Palmas, it appeared as a rocky promontory jutting towards the north-east. Upon the summit was a light-house, and to the west a fine sandy bay. In the back ground were a number of palms, shading the American Mission and other substantial looking houses. On the beach was lying the wreck of the steam-ship *Yoruba*, at anchor were a couple of brigs, a small English steamer, which would only progress at the rate of two and a half miles the hour, and the *Africa*, on the point of sailing for England, her captain very red in the face, and furious at being detained by his mate, who had come on board us for news. We here heard, for the first time, of the blockade of the Gold Coast, and the seizure of the American vessel trading in contraband of war. News had also arrived that sickness was very prevalent among the natives, who, in consequence of the dearth of provisions, had been obliged to import corn and fruits from Lagos, Cape Coast being quite surrounded from the land side. The rock here appeared to be the same discoloured granite, or dark gneiss, the sand of a rich golden colour, further inward becoming white and glistening, very beautiful to look at from the sea. Here and there ledges of rock shoot out in small promontories, with the same background of dense forest and rounded hills, pretty bays, and ruined fortifications. From Cape Palmas commences that system of lagoons and canalisation which runs parallel with the coast, far away to the east, in some places extending many miles into the interior.

The night was beautifully clear, and the sky studded with myriads of bright and twinkling stars, variegated in the south with a milky way of surpassing beauty. The usual vivid lightning played in the north-east, and the phosphorescence on the rippling waves added much to the *ensemble* of one of the most lovely nights we had hitherto passed in the tropics. A light breeze, cool and agreeable, was blowing gently over the sea, reducing the temperature to 76 deg. at 8 P.M., as, steaming due east, we entered the Gulf of Guinea, the El Dorado of the older Portuguese mariners, who in 1450 had first sighted the headland we had just left. The waters of the Gold Coast extend from the Gold River, near Apollonia, in longitude 2 deg. 35 min., next to the Volta, 41 min. 2 sec. east, 225 miles in a direct line.

The morning of the 10th September was cool and chilly, the temperature under the awning at 7 A.M., down to 75 deg., rising only 4 deg. by 3 P.M. The sky was cloudy, and shoals of "ship-jacks," followed by predatory sea-gulls, rippled the water all round the steamer. As the breeze sprung up from the north-west, it began to rain. As we approached Half Jack at 9 A.M., it became for a short time close, warm, and calm, although at the moment the readings of the hygrometer were only 75 deg. and 78 deg. in the shade in the air. The sand on the beach had now assumed a reddish yellow colour; there appeared to be no surf, no hills were to be seen, only a small fringe of mangroves, and some distance in the background the trunks of a few tall trees stood out in bold relief from the stunted bush which surrounded them. At ten minutes to 11 A.M., we anchored opposite Half Jack, a rather large native village, on a small plain open to the water. Here we saw, for

the first time, the canoe-shaped surf-boats, the natives sitting in a row along the gunwale, digging their flat circular or heart-shaped paddles in a series of rapid jerks into the sea, resting for a minute, after a few quick movements, to sing some ditty, the music and words of which were rhythmical, and the effect pleasing and singular. A similar method of propelling canoes extends along the coast far to the leeward. During the intervals, light motions of the paddles keep time to the music of the song. Sometimes the paddles, when working in quick succession, make a peculiar churring noise, difficult to describe. In our immediate vicinity were three large Bristol ships and a schooner at anchor.

Half Jack is the head-quarters of the West African Bristol trade, the vessels of the small mercantile squadron lying here for months at a time, only relieving the monotony by a short cruise to windward or leeward. Sometimes these ships do not return to England for two years at a stretch. The masters of the vessels, who are also the supercargoes, are obliged to give large credits, all of which are returned in the shape of palm-oil, gold-dust, and ivory. We were shortly boarded by two of the captains, who appeared in blooming health. They had come to obtain some potatoes, onions, and a few other necessities, giving gold dust, their only circulating medium, in exchange. Being rather anxious to ascertain how the problem of maintaining health in such a place was solved, I entered into a long conversation with one of our visitors. He said the crews were healthy, not suffering from fever, except when it had been contracted elsewhere and previously to arrival on the coast. Occasionally, during the rains, they suffered a little from rheumatism. Upon the commencement of the wet season, all took to wearing flannel suits and underclothing. The general sanitary arrangements appeared to be excellent. Each ship had a crew of thirteen hands, who were carefully protected from the sun by awnings spread fore and aft. The crews were chiefly composed of married men, who, having wives and families to support at home, were found more useful and steady, and so were especially sought after. On no pretence whatever were they allowed to land while their ships remained off the coast. The water is brought from Bristol and kept in tanks in the hold; supplemented by rain-water, the supply is found to be sufficient, that from the shore being never used. Before leaving England, each captain has the selection of his own provisions, which are of the best quality; the good and juicy corned beef provided being preferred by the men to the preserved provisions. These two kinds of food are supplemented by periodical supplies of fresh pork and vegetables; fowls from the neighbouring villages: yams are also largely consumed. During the week, fresh and preserved meat are taken on one day each, corned beef on the remaining five. Lime-juice is issued daily, and each sailor is allowed a glass of grog well diluted with water twice a day, not a bad allowance by the way. The crews, assisted by natives, are constantly at work in their floating houses, which lie about a mile from the shore. Being not entirely stationary, or anchored at the *embouchure* of a pestilential river, as are the hulks in the Bonny, may in part account for the excellent hygienic results obtained. Only native boatmen are employed to ascend rivers or go on shore; and this little nautical colony seems settled down steadily to work until the moment arrives for its members to return to England, home, and beauty. The constant passing to and fro of the African steamers to a certain extent relieves the monotony. My informant had not once landed during his last five voyages. The strong sea-breeze had the effect of keeping away two abominations of the tropics—mosquitoes and sand-flies. The crews were up early, breakfasted at 7 A.M., dined at 1 P.M., and supped at 6 P.M., an excellent division of the day where work such as they had to perform had to be carried on.

Making only a short stay at Half Jack, we were, by 5 P.M., drawing near Grand Bassam River, the influence of which upon the sea was shown by the yellowish-brown discoloration of the water surrounding the steamer. The same uninteresting-looking sandy shore, fringe of mangroves skirting the lagoon, and primeval forest in the background, was everywhere apparent as we passed along, not six hundred yards from the shore, which we could not see very distinctly owing to a drizzling mist falling from a clouded sky. The hygrometer only read 75 and 76 deg. There was scarcely any wind except that created by the movement of the steamer through the air. As we proceeded, the screw stirred up the muddy bottom, thus marking the sea in our wake for a long distance. One of Mr. Swanzy's brigs, the *London*, was lying off Grand Bassam, a wretched-looking, low-lying place, with what appeared to be half-a-dozen tolerably well-built houses close to the shore. This settlement was occupied by the French in the reign of Louis XIV; afterwards abandoned, it was reoccupied in 1814, but is now no longer a military station, although still owing allegiance to the French Republic, its commandant, surgeon, and detachment of Tirailleurs Senegalais having been withdrawn in 1870. We could barely see the river and surf, the latter breaking over the bar as we steamed by

through a heavy downpour of rain. Assimi, close by, is one of the regular Ashantee ports of trade, a road existing from Coomassie to Kintjabo, three miles inland.

The 11th of September rose as a cool, damp morning, after a previous night's heavy rain, at 7 A.M., the wet and dry bulbs only indicating 75 and 76 deg. under the awning at the moment we were passing the Bight of Chamah, the scene of the Commodore's recent not very pleasant adventures. We had steamed by Cape Three Points a little after midnight. Scarcely a ripple disturbed the waves at 9 A.M., the mercury rising to 76 and 78 deg., and one of those typical coast days between the wet and dry seasons commenced. A calm, cloudy, airless, sunless, disagreeable, muggy day, the atmosphere nearly upon the point of saturation, the lightest clothes felt burdensome, the least exertion causing a profuse perspiration, difficult and oppressive breathing. A haze hanging over the land, scarcely permitted a clear view of the fine old castle of El Milsa and Fort St. Jago on the hill in the background, as at 10 A.M. We were nearing Cape Coast Castle, which looked a confused ill-defined mass in the distance. In the background were the low conical hills, clothed in a bright green. The native town, with its flat and broken roofs, had a tumble-down appearance, not unlike a city recently bombarded. It was quite evident that the heavy rains had done much damage. The surf was breaking with violence upon the ledge of rocks upon which the castle stands; this last, when the mist cleared away, appeared as a long irregular whitish-grey building, about a mile distant from our anchorage, where we had arrived at 11 A.M., after a voyage of twenty-two days, performed afterwards by the *Sarmatian* in twelve and a half—4100 miles from home.

As noon approached, it became oppressively hot—92 deg. in the shade on deck. Our sensations were most distressing, as we gazed longingly on the beach, hoping that a change to there would be preferable, although such a *terra inhospita*. Below is the meteorological record since our departure from the Gambia on the 3rd September, completing that of our voyage.

	Wet Bulb.	Dry Bulb.	Remarks.
Sep. 3	80	81	7 A.M., in cabin at sea, port open.
	80	85	9 A.M., in shade on deck; very close; light breeze from S.W.
	82	89	3 P.M., watery, greenish-blue sky.
Sep. 4	78	81	7 A.M., in cabin, port open; small tornado at 3 A.M., with rain from N.E.
	77	80	9 A.M., in shade on deck.
	77	81	3 P.M., " " "
Sep. 5	77	79	7 A.M., in cabin, port open; heavy rain during night from S.W.
	75	79	9 A.M., in shade on deck, off Sierra Leone; rain on hills.
	74	76	3 P.M., rain from S.W.
Sep. 6	78	81	7 A.M., in cabin, port open; raining all the morning.
	77	80	9 A.M., in shade on deck.
	79	85	3 P.M., cool sea-breeze.
Sep. 7	76	80	7 A.M., in cabin, port open; left Sierra Leone at 4.30 P.M. on evening previous.
	77	83	9 A.M., in shade in air; fine but clouded morning, light westerly wind.
	78	83	3 P.M., becoming sultry.
Sep. 8	76	79	7 A.M., in cabin, port open; opposite Cape Mesurado.
	76	79	9 A.M., in shade on deck; dull and clouded.
	78	83	3 P.M., few rain-clouds over the land.
Sep. 9	75	78	7 A.M., in cabin, port open; raining, cold, sky clouded, downpour during the night.
	76	78	9 A.M., in shade on deck; opposite Grand Cess.
	76	81	3 P.M., left Cape Palmas at 2 o'clock; westerly sea-breeze.
Sep. 10	75	78	7 A.M., in cabin, port open; rained during night; cool, chilly, clouded.
	75	78	9 A.M., in shade on deck, at Half Jack; warm, close.
	76	79	3 P.M., in shade on deck.
Sep. 11	75	77	7 A.M., in cabin, port open; rained at night; damp morning.
	76	78	9 A.M., in shade on deck; calm, clouded, haze over land.
	—	92	At noon, under awning; hot and oppressive.

At 2 P.M., we bade adieu to Commander French and our fellow-passengers, after, in spite of all drawbacks, a most agreeable voyage, the recollections of which will ever remain pleasant memorials of the past. Its incidents have been described minutely, in order to leave on record all the more prominent points of interest observable in

the voyage to Africa, from which it has been our good fortune to return, after much sickness, many adventures, and hairbreadth escapes. A few typographical errors have unfortunately crept in, which the indulgent reader will kindly overlook. As rough notes do not afford much scope for word-painting, those who have perused them must supply this great want in these, our jottings by the way.

ON A HANDY METHOD OF EXAMINING MORBID NERVOUS TISSUES MICROSCOPICALLY.

By J. BATTY TUKE, M.D., F.R.S.E., F.R.C.P.E.

THE great obstacle in the way of examining microscopically the tissues of subjects affected by disease of the nervous centres, has been the laborious nature of the work involved in preparing specimens, and in cutting, tinting, and setting up sections. The examination of fresh specimens of brain and cord has been urged by myself and others as an important part of a necropsy in such cases; but it must be confessed that the results obtained by squashing out small portions of nerve-tissue under a covering-glass have been in no small degree unsatisfactory, inasmuch as lesions of individual constituents have been extremely difficult of recognition; and further, in many cases, it has been found impossible to distinguish between morbid appearances and normal structures. This process has served to demonstrate fuscous degeneration of cells, and to suggest the presence of certain other abnormalities; yet an element of doubt must have often existed in the mind of the conscientious observer as to certain important points. But all doubt as to the actual nature of what one sees in fresh specimens can be obviated by adopting the following simple process.

Take a portion of nerve-tissue, about the size of a large pin's head, from a thoroughly defined locality, squash it out gently under a covering-glass on a slide, remove the covering-glass, and apply to the mass left on the slide a drop of "Judson's simple (aniline) magenta dye", diluted with eight drops of water; with a needle, mix the dye and the nerve-matter carefully, and cover the preparation with a clean covering-glass, again gently pressing it out to such an extent that light can pass through it. On submitting a specimen thus prepared to the microscope, it will be found that the cells, the nuclei of the neuroglia, and the blood-vessels, are beautifully tinted a deep crimson colour, leaving the other tissues almost unaffected. As far as my experience has gone, morbid products are also well brought into view, either by their ready absorption of the dye, as in the case of amyloid bodies, or by their refusal to take on the tint, as in the case of colloid bodies. Hematoidin accepts the colour all too readily, but the practised eye soon recognises its appearance. Pigmentary degeneration of cells is well shown, nucleus and nucleolus being thoroughly demonstrated; the poles can also be traced for long distances. A little practice will enable the observer to detect changes in the nuclei of the neuroglia, both as to their individual character and degree of proliferation. A specimen thus prepared presents many aspects more beautifully than can be obtained by the thinnest section I have been able to make; it can be viewed by the highest powers, and, moreover, an objection which has been raised by those who know little of the subject against prepared sections; viz., that the appearances presented by them may be the result of the "pickling" to which they have been subjected, is to a very great extent obviated.

Whilst this process affords a handy method of examining morbid nervous tissue, it can only be advanced as such; it does not supersede sections; for, of course, the nerve-elements are not shown *in situ*. In order to render a *post mortem* examination thoroughly satisfactory, the condition of the tissues must be studied in their relation one to the other; still, it is of no mean importance for the pathologist to be able to say definitely that the vesicular or nuclear elements of such and such a tract were demonstrated to be abnormal in kind or quantity. This can be done with considerable accuracy by the "handy process". In two hours, the pathologist can go over all the parts of a brain and cord, and, if he have any experience of the examination of nervous tissue by the section-process, and know his anatomy with an ordinary degree of accuracy, he can arrive at results of an important nature in a short time. But, if he desire to make assurance doubly sure, or to substantiate a theory as to the absolute nature of a case, he must prosecute his inquiries till he can view the lesions *in situ*, which, of course, entails microscopic sections. I may here remark *en parenthèse* that the most satisfactory results which I have been able to obtain in section-cutting have been by following Betz's method (*vide Journal of Mental Science*, October 1873, p. 465). I have not yet made any experiments as to the best method of permanently preserving fresh specimens prepared by this

handy method; but I believe that careful manipulation will enable them to be set up in glycerine. It is more than probable that this process will be found useful in the examination of other morbid tissues.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF ACUTE AND CHRONIC BRONCHITIS AND ASTHMA.

PERHAPS the following few words upon the treatment of the above distressing maladies, especially of the two latter, may prove interesting.

I have tried iodide of potassium in over a hundred cases, with almost invariable success; in fact, with such success, that patients have expressed themselves by saying, "It has acted like a charm"; others have said that no medicine ever had any real effect upon their complaint before. Iodide of potassium has a marked effect upon the breathing, reducing the frequency of the respirations, perhaps (as I think) overcoming spasms. Almost after the first dose, patients have stated they have felt the medicine touch their complaint.

I usually prescribe it with carbonate of ammonia, and, when the cough is very troublesome, add tincture of belladonna and ipecacuanha wine. In the above complaints I rarely give anything else but the above.

In one case of very severe broncho-pneumonia I tried iodide of potassium, with tincture of hyoscyamus and ammonia, and the respirations were quickly and astonishingly reduced from forty in a minute to less than half that number.

In conclusion, I should add that I have purposely given a mixture containing ammonia, belladonna, ipecacuanha wine, spirit of sulphuric ether, etc., without iodide of potassium, and have not found much benefit; after which I have added iodide of potassium, and found the patient relieved almost at once.

I have given this remedy about one year's trial, and can confidently recommend iodide of potassium as the remedy in these troublesome complaints.

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HYPODERMIC INJECTION OF ERGOTIN IN PURPURA HÆMORRHAGICA.

THE following are the brief notes of a new and successful method of treating purpura hæmorrhagica. This case was, however, a complication of typhoid fever, consequently a case of even graver prognosis than an uncomplicated one of purpura hæmorrhagica. Miss M., aged 16, was attacked with typhoid fever, under which she was progressing favourably, when, on February 15th, three weeks from the commencement of the fever, the patient had a severe attack of epistaxis, which recurred each successive time with greater severity. Forty-eight hours from the first attack of bleeding from the nose, several purpuric spots appeared all over the body simultaneously, and hæmoptysis, hæmatemesis, and hæmaturia set in. The patient took every kind of styptic, notwithstanding the hæmorrhages increased most alarmingly, so much so that she had several attacks of syncope. Seeing her case now quite hopeless, and finding that I had ineffectually used every kind of astringent recommended by various authorities for purpura hæmorrhagica, such as turpentine, gallic acid, aromatic sulphuric acid, etc., I resolved, as a last resource, to give hypodermic injection of ergotin a trial. I had previously found it very useful in hæmoptysis and hæmatemesis. Having also considered purpura hæmorrhagica a disease of the capillaries, and not a malady the result of a deficient amount of fibrine in the blood, for the blood of purpuric patients coagulates as firmly as that of healthy individuals, and knowing that ergot always causes contraction of involuntary muscular fibres, I hoped that in this case, by its contracting the involuntary muscular fibres of the minute arteries, I should prevent any more hæmorrhage by lessening the flow of blood to the capillaries. I injected hypodermically one grain of the liquid extract of ergot at a time. After the first injection, the hæmorrhage from the nose, the stomach, the bowels, and the bladder diminished greatly, while fewer new purpuric spots appeared on the body. The second injection completely arrested the hæmorrhage. The patient being nourished and stimulated freely, her strength rallied, the fever came to a crisis a few days afterwards, and she made a perfect recovery.

This case is of interest in this respect, that it is the first time, as far as I am aware, that ergot has been used hypodermically for purpura hæmorrhagica, and its employment has been followed by success.

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