

return, and he had no subsequent attack. He attended the dispensary nearly a month, on account of his enlarged spleen. This diminished in size, but was still abnormally large, when he ceased attending.

CASE IX.—Joomun, a boy, æt. 12. Sept. 11, 1855. Says he has had quotidian ague for eight days. The attack commences at 4 P.M. He took gr. j. of quinine at 3 P.M. on the 11th, 12th, and 13th. He had no fever on the 11th, and 12th, but a smart attack at 4 P.M. on the 13th. He repeated the dose of quinine at 3 P.M. on the 14th, 15th, and 16th, and had no return of fever. I last saw him on the 17th.

CASE X.—Paulus, a Christian man, æt. about 30, employed at the mission-press. Says he had an attack of ague on Sept. 10, 1855, and another on the 12th, commencing at 1 P.M. He took gr. ij. of quinine by mistake on the 13th; he was told to take it on the 14th. He repeated the dose at noon on the 14th, and had no fever on that day, nor on the 16th, and I did not hear that it returned.

CASE XI.—Beeki, a groom, æt. about 30. Says he had an attack of ague on Sept. 11, 1855, at 2 P.M., and another attack on the 12th, at noon. On the 13th, he took gr. ij. of quinine at 11 A.M., and the fever came on at 9 P.M., without the cold stage. On the 14th, he repeated the dose of quinine at noon. He had no fever on either the 14th, 15th, or 16th, and I did not hear that it returned.

CASE XII.—Chumhua, a boy, æt. about 14. Dec. 18, 1855. Says he has had quotidian ague for a week. The attack commences at 8 P.M. He took gr. ij. of quinine at 7 P.M. on the 18th and 19th, and on neither of those days, nor on the 20th, did the fever return. I last saw him on the 21st.

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ARTICLE V.—*Some Observations on Medicine and Surgery, as practised by the Natives of the portion of the West Coast of Africa, adjoining Cape Coast Castle, commonly called "Fantees."* By C. A. GORDON, M.D., Surgeon, 10th Regiment of Foot.

THE science of medicine may, without any great stretch of the imagination, be said to date its commencement from the year 4004 B.C., when the fall of our first parents brought upon them and their descendants that just sentence, in obedience to which, the human race was thenceforward doomed to a life of sorrow and toil; nor is the supposition extravagant or improbable, that the first occasion on which "professional assistance" was employed, was at the birth of Cain.

Mankind, whether as the polished European, or the rude and savage New Hollander, who, until very lately, scarcely understood the use of fire, find it equally necessary to cultivate this most useful and liberal of all sciences. We accordingly discover, that in all countries, there are to be found a certain number of professors of "the healing art," and we, moreover, observe, that in proportion to the civilization of a people, so is the removal of this branch of knowledge from the superstitious rites with which its practice is

accompanied among races still in a more or less complete state of barbarism.

In that part of Western Africa, to which the following observations are intended to refer, namely, what is commonly known as the Gold Coast, the native inhabitants of which are the "Fantees;" all the endeavours of philanthropists and of missionaries have hitherto failed to raise this people from the depth of degradation in which they are sunk, by the combined influence of their deplorable ignorance, and the abominable superstitions of Paganism, in some of its most hideous forms, by which they are enthralled.

As an instance of their ignorance of one of the most ordinary household operations, I may mention, that they do not yet comprehend the art of withdrawing milk, for their own use, from the udders of the small but beautifully formed cows, of their own country.

They have not yet succeeded in forming written characters for their different languages or dialects used among them. Their records of events are mere oral traditions, while the scanty materials that make up the learning of the Fantee country are, as in all barbarous states of society, confided to, and securely concealed from the body of the people, by the priests or "Fetish men."

As an apology for some superstitious observances being at the present day mixed up with the practice of medicine and surgery among the Fantees, I would observe, that they are not singular in this. On the contrary, nations far more advanced in civilization than they are likely to be, for very many centuries yet to come, had rites not less absurd than some of theirs. For instance, we read that in the temple of Esculapius, priests and priestesses prepared the medicines. In our own country, it was at no distant period the custom for the physician to mix the potion intended for an interesting patient, by means of the ring finger of the left hand, and this for the same reason that such finger is even still chosen for the mystic symbol of matrimony, namely, a belief entertained by the ancients, that a nerve arose from the heart and thence proceeded to that finger. The symbol with which our every day prescriptions commence (℞), and which is now deemed equivalent to "Recipe," was, in the more early periods of the profession, in reality used to denote that the physician invoked the blessing of Jupiter upon the means he was about to prescribe; neither is it long since plagues and pestilences were believed to be capable of being immediately checked by simply driving a nail into a church wall.

In fact, it was not until physiology had revealed the laws, in obedience to which the natural functions of organs and tissues are performed; until chemistry had unfolded the nature of substances and relations of different compounds of matter to each other, and until botany had made known the value of the natural affinities that exist in the vegetable kingdom, that our most noble profession began slowly to emerge from the superstition and empiricism by which its early condition had been fettered.

From this, then, it need be no matter of surprise, that the untutored natives of the coast of Guinea, should still consider sickness to be the direct infliction of the "Great Fetish," for as such they recognize the Supreme Being, for some act of wickedness committed by them, either voluntarily or unknowingly to themselves; nor that such being their belief regarding the origin and progress of disease, charms and incantations should form part of the means employed for its removal.

There is no Fantee who does not wear around his neck or on his wrists, his especial charm, which he believes has the power to protect him against danger in battle, as well as secure him immunity from disease, for which purposes a throatlet or bracelet, containing a few monkey's teeth, or a panther's claw, is, in his simple belief, amply sufficient. When, however, the Great Fetish does send sickness, recourse is generally had to such remedial agents as their scanty pharmacopœia contains; and should these not be successful in checking the malady under which the person labours, the patient is quietly informed that he is "wanted by the Fetish." The priest of the village, if not already present in his capacity of physician, is sent for, and on his arrival, the dying person, instead of being, as with us, carefully tended and nursed in bed, his last moments soothed by the solicitous and affectionate services of sympathising relatives—is immediately forced into an upright position. His family set up a most discordant noise, of yells and howls, rendered, if possible, still more discordant, by beating tom-toms or native drums; and in such a scene does the life of the poor besotted Fantee pass away.

It appears that this people are more skilful in the treatment of medical than of surgical cases; and for combating the fevers, the bowel and pulmonic affections, to which they are subject, the neighbouring forest furnishes them with an inexhaustible supply of appropriate remedies. The rivers and marshes that occur at intervals along an otherwise dry tract of country, furnish leeches in abundance. A gourd, cut through the centre, and perforated at the point of its contracted extremity, is readily converted into an enema apparatus, or, after some slight scarifications have been made with a razor, it may be used as an efficient substitute for our cupping glass; while the irritant juices of numerous euphorbaceous plants that here abound, are ready and effectual vesicants.

The natives appear to be completely exempt from that peculiar form of fever, which is the bane of Europeans residing on the coast, and it is a remarkable circumstance, that hitherto, no epidemic of cholera has here occurred, although the ravages of some epidemic diseases, and especially of small-pox, are at times such as almost to depopulate whole districts.

Intermittent fevers, from which few whites escape, do not seem to affect the natives of the Gold Coast, but they manifest considerable liability to fevers of a continued type, in the treatment of

which they employ enemata of various kinds, and it may be mentioned, that not only are they very partial to this mode of administering medicine during disease, but they make it an almost daily practice to employ a lavement during health.

In treating febrile attacks, great attention is paid to the state of the skin, the surface being sponged every morning, and sometimes at intervals during the day, with water, into which several limes have been squeezed. It is impossible for those who have not experienced, in their own persons, to understand the grateful sensation and benefit derived from this occasional sponging, with diluted lime juice, during the heat of fever, and it is no reflection upon our science to say, that when on the Gold Coast, I have frequently observed more relief, as well as comfort to the patient, to arise from being thus occasionally sponged by an old Fantee woman, than from all the remedies prescribed by the regularly educated professional man.<sup>1</sup>

Cupping, and the application of leeches, are frequently employed, particularly for the alleviation of "head symptoms;" the less severe form of local pains being treated by the application of a paste composed of Guinea grains<sup>2</sup> and capsicums.

During convalescence, the Fantee infuses some of the tonic and bitter woods that grow around his dwelling. Diffusible stimuli are to be had in the shape of a kind of beer, called by the natives Peto, which they manufacture from the maize or Indian corn that here forms their principal crop; wine being procured by the spontaneous fermentation of the sap of the palm, when exposed for an hour or two, to the sun.

In the preparation of nourishing broths, the Fantees are second to none, but, on the contrary, equal, if not excel in this respect, the ancient Spartan or modern Scot; and I feel certain, from personal experience, that not only does the sick and debilitated native frequently owe his recovery to this good fare, but that many an European owes his life to being well supported by this excellent compound of fowls and eggs or fish, with rice and cassada root,<sup>3</sup> administered probably in opposition to the strict injunction of the white doctor, particularly of the salivating and bleeding school.

Perhaps, of all the native dishes prepared for the use of invalids, none stands higher in estimation on the coast of Guinea, than does

<sup>1</sup> Since the above was written, I have frequently employed sponging with lime juice in the treatment of fever in Bengal, and with the same effect described in the text.—C. A. G.

<sup>2</sup> *Amomum Grana Paradisa*.

<sup>3</sup> The following will give some idea of the mode of preparing this very nutritious broth:—Proceed so far as in the preparation of chicken broth, seasoning well with shalots. Hard boiled eggs, divested of the shell, are then to be added, in number proportioned to the quantity of soup to be prepared. Rice or barley is added, to give the required consistence, and it is served up with mashed cassada root, or what would, no doubt, do here equally well—mashed potatoes.

a preparation of the solid bulbs or corms of the cyperus badius or tiger nut, the dish alluded to being known by the somewhat fanciful name of "tiger milk."

For an invalid, this certainly equals the "flummery," or Carrigheen moss of Ireland—the sewins of Scotland, or even the arrowroot and sago of the East and West Indies, but is sometimes used by the natives for a very different purpose than as a means of restoring strength, impaired by long or severe illness; being by them believed to possess similar properties to those which, according to a certain immoral poet, are possessed by the "ostrea edulis" in this country; or, according to natives of India, by the "Salep misri," or corms of the orchis mascula.

There are numerous malvaceous plants here, from which, in their fresh state, demulcent decoctions are readily prepared, and from whose ashes alkalis are easily collected. The different acacias furnish beads of gum, that are readily converted into mucilage, which, as emolient applications to blistered surfaces, or external ulcers, and wounds, the leaves of the common plantain (*musa*), or banyan (*ficus*), here called the umbrella tree, are invaluable.

Carminatives are obtained from the Guinea grains already alluded to, as well as from the moringa or horse-radish tree. Various wild species of mint are met with on the coast, and at least one species of ricinus is cultivated in the fields. Tobacco may frequently be seen growing, as an ornamental flower, at the door of a Fantee hut, although, strange to say, the natives have not discovered that this very plant yields the dried leaves brought to them from the Brazils and elsewhere, and bartered for their own flesh and blood; while extensive tracts of country are sometimes met with completely covered with the beautifully variegated flowers of *Datura*. As regards midwifery among the Fantees, my opportunities of observation do not justify me in saying much. I am aware, however, that, for the purpose of procuring criminal abortion, the means usually employed are direct injuries upon the uterus, or the administration of concentrated decoction of the cotton plant—one of the species of *gossypium*—a plant which, although growing here in very great abundance, has not as yet been converted to any other more useful purpose.

Regarding the operations of surgery, the Fantee knows but little, and therefore, however small may be their faith in the medical knowledge of an European, they do not hesitate to solicit our assistance, when one of themselves meets with an accident, such as some injury inflicted by the bursting of the badly made Birmingham muskets, or Dane guns, they invariably carry about with them.

Although this people, as a race, freely indulge in the various foibles that, together, constitute dissipation, they, nevertheless, make far better recoveries from wounds and injuries than might be expected; and, from observation, I am inclined to think that, however unfavourable the climate of the Gold Coast may be to medical

diseases, it is, upon the whole, favourable to those that belong to surgery.

The mode in which amputation of a limb is performed by the Fantees, either in carrying out the sentence of mutilation of a member, in accordance with the barbarous sentence of the king, caboceer, or chief, or as a last resource in the case of an injury or disease, is the same. The limb to be removed is simply placed upon a block, and one blow of a hatchet severs the offending part. The use of ligatures is not known, because the circulation of the blood does not yet form a portion of their professional knowledge. By searing the stump, however, or by the still more cruel mode, of plunging it into boiling palm oil, the occurrence of hemorrhage is effectually prevented. The after cure is necessarily slow; the extremity of the bone must exfoliate. Should the patient be of delicate constitution, he ultimately falls into a state of hectic, and dies, but, if strong and robust, he may perhaps recover, after a year or eighteen months of excruciating suffering.

MILITARY SURGERY, properly so called, has not yet been cultivated by the various races inhabiting the country around Cape Coast Castle; that is, they have not yet learned the importance of victualling, clothing, transporting, and accommodating bodies of troops. As, however, petty wars and forays are of frequent occurrence among them, so also are the various classes of injuries peculiar to a campaign.

The chief weapon of the Fantee is the long Dane gun, already mentioned; but, instead of employing the round bullet, as with us, they prefer small *square* pieces of lead, of a size not much larger than that of swan-shot. Of this they put a regular *charge* into their muskets, and the wounds thus inflicted are both severe and numerous.

For the extraction of these missiles, they possess rude instruments, in the use of which they manifest much expertness, as well as boldness; the latter quality, however, depending upon their want of anatomical knowledge.

It may be observed, that in the desultory mode of warfare followed in Western Africa generally, the number of wounded who escape are comparatively few, for, with the exception of those slightly injured, the vast majority fall into the hands of the opposing force, by whom they are instantly decapitated, by means of the long knives, that the natives invariably carry in their girdle, the heads so obtained being carefully preserved, to be laid at the feet of the chief, as unmistakable trophies of victory.

In their treatment of poisoned wounds, it is to be feared the Fantees are not very successful. Perhaps in no part of the world do venomous snakes so much abound as on the coast of Guinea: compared with it Ceylon, St Lucie, and India, sink into the shade in this respect.

For the treatment of wounds from these reptiles, they use cau-

terization of the part bitten; they apply a ligature if that be possible, as with us; they believe that the free application, by rubbing, of snake fat to the wound, is a valuable remedy. Various incantations and superstitious rites are, at the sametime, employed; but the one specific, in their opinion, is the application to the wound, of the *snake stone*, which they think has the power of extracting the poison introduced by the fang.

This "snake stone" has a superstitious value attached to it, being always kept in the possession of the "Fetish man," except when being applied. The only one I ever had the good fortune to see, was about the size of a large garden bean of this country, but double the thickness. It was of a dark slate grey colour, and polished on the surface. It was so light as to indicate that it did not belong to the mineral kingdom; and by some old residents on the coast, it was believed to be nothing more than a piece of bullock's horn. Such was the value attached to it, that I could not prevail upon the native, in whose possession it was, to part with it. I fear, however, that as a remedy for the bite of the puff adder, or hideous black snake of the coast, it would be very inefficient, and, that instead of trusting to this *stone*, as it is called, it were well if the natives, whose avocations oblige them to be much out of doors, especially at night, when snakes are about in greatest numbers, had in their possession a phial of Eau de luce, which there is reason to believe, is a very efficient remedy for this description of poisoned wound, when applied to the part injured, and taken internally in considerable doses.

The last point to which I shall refer, in connection with the present state of the medical sciences on the coast of Guinea, is the native treatment of that peculiar parasite, the dracunculus, *filaria medinensis*, or Guinea worm, the latter name being given on account of its frequent occurrence on this coast.

The period of the year at which the Guinea worm usually appears, is shortly after the commencement of the rainy season, or about the month of June, and it continues to prevail, with more or less severity in different seasons, till November or December, after which few cases are only to be met with.

It was a very natural supposition entertained by the Fantees, that the creature introduced itself into the human body by means of the water used as a bath or for drinking; yet all attempts to detect the *thread-shaped* little animal in this element having failed, it became difficult to perceive how it could be propagated in such vast numbers, as it unquestionably is there.

This mystery still remains unsolved to the Fantees; but the researches of the indefatigable Professor Owen, have revealed to us the very peculiar metamorphosis through which this, and kindred animals pass, and how different they are in the early shapes of their existence from the forms which they assume in their more mature condition.

Guinea worm may, as is well known, become developed in any part of the body, but is most frequently found in the lower parts of the legs, and in the forearms. It frequently exists in great numbers in the same person, as many as fifteen to twenty having been extracted successively from various parts of an individual, and it is believed that it does not attain its full size until about a year after its introduction into the body; consequently, that any one who has been on shore at the Gold coast, is liable to become affected with this entozoon for twelve months afterwards.

My intention is not, however, to give a medical history of dracunculus, but to state a few particulars relative to the native method of getting rid of it; and it must be confessed, that instead of the extensive incisions frequently employed in its treatment by European surgeons, it were well for their patients, if a hint were taken in this respect, even from the barbarous Fantee.

In cases where there is much inflammation or suppuration of the part affected, the natives apply poultices of Indian meal (maize), and on fluctuation becoming distinct in a particular spot, they make an opening with a razor, or other sharp instrument, after which they continue the poultices as before.

In such cases, the "worm," as it is called, is almost invariably dead, and has to be discharged piecemeal, and during this tedious and painful process, if the vicinity of a joint happen to be the seat of the affection, the most frightful sinuses often form, and the limb often becomes so much bent upon itself, as, in the eyes of an inexperienced person, to appear lost for ever. But the native does not become at all alarmed, for he knows that sinuses and contractions the most formidable in appearance, heal, and disappear in a few days after the exciting cause has been got rid of, and they therefore avoid any further use of the knife.

In the great majority of cases, the existence of Guinea worm is made known to the person affected, by his experiencing a peculiar shiver or chill, which pervades his entire frame, after which, in the course of the following night or day, there is a degree of tumefaction and pain in some part of the body, and, most probably, on examining it, he will perceive a minute whitish point, like what is usually called the "head of a boil;" and then the chances are, that by means of the point of a pin inserted into this, the operator will readily extract one extremity of the peculiar creature that lies underneath, in convolutions that may often be felt by the hand applied to the surface.

Should the seat of the disease be a depending part, as, for example, the leg, the Fantee secures the extremity of the worm to a small portion of lead, and then pursues his ordinary avocations, the weight of the metal having the effect, by constant traction, to gradually withdraw the animal, the portion so extracted being rolled round the weight once or twice a day.

If, however, from position, or other causes, this means cannot



be employed, the extremity of the "worm" is attached to the centre of a narrow strip of cloth, upon which it is securely twisted, so far as this can be done without running the risk of breaking, the piece of cloth being then tied around the limb or part, so as to prevent it from slipping.

Should the animal break, no further notice is taken of it unless inflammation set up in the part, when moistened Indian corn meal is applied, by means of a plantain leaf, and secured by strings made from the tenacious fibres of the pine apple leaf.

It must be stated, however, that although permanent disability seldom follows attacks of Guinea worm, there are, nevertheless, persons to be met with in Africa who have, by this cause, been reduced to the state of absolute cripples, either in consequence of contraction of the joints, or extensive sloughing of the muscles thus induced.

The above observations were originally written so long ago as 1850, from notes taken by me while serving on the Gold Coast in the years 1847-48.

In consequence of my hurried departure for India soon afterwards, the manuscript was laid aside, but as the subject bears reference to a people whose history is but little known in this country, I hope it possesses sufficient interest, even now, to justify publication.

November, 1856.

ARTICLE VI.—*Case of Molar Pregnancy.* By ROBERT CRAWFORD, M.D., Peebles.

ON the 15th of September last, about 8 A.M., I was called to Mrs C., about five miles distant. On arriving, I was informed by the patient's mother, that she had been in severe labour since 3 A.M., but that there was something peculiar about the case. She then gave me the following history:—

Her daughter, æt. 18 years, of a very healthy constitution, in the beginning of April last, then unmarried and at service, menstruated as usual, and shortly after began to exhibit the symptoms of pregnancy.

**History.** Still, being previously hired to go at Whitsunday to serve in another family, eighteen miles distant, she went, and continued in her place till the middle of July, though not menstruating, and complaining a good deal. At this date, in consequence of her supposed pregnancy, and by the advice of her friends, she went home and was married. Shortly after, a sanguineous discharge commenced to flow from the vagina, and **Bloody Discharge.** continued, more or less profusely, up till the morning I was called to her. She had walked ten miles the day previous to my visit, which seemed to be the exciting cause of labour coming on. Her mother had observed that her breasts had greatly increased in size, but could perceive no difference in the size of her abdomen. She had never quickened.

I found the patient in bed, taking severe pains every few minutes. The mammæ had the appearance which they usually present about the sixth month of pregnancy, but the abdomen was but very slightly enlarged. No sound could be heard on a stethoscopic examination. The os uteri was almost closed, so that the finger could not be