finger on the pulse, and the moment you find its force and fulness diminishing, and its frequency increasing, close the orifice; having done this, under the same view of the state of the system, prescribe exactly as your judgment shall teach you to be proper for the existing state of affairs; but believe it not, when you are told to commence, in all cases, at once with mammoth doses of opium, and that it never did, never will, and never can do harm in this disease. In the hands of Dr. Coates, whose extensive experience, and refined judgment, enables him to discriminate at a glance, exactly the case which consists in pure nervous mobility, or cerebral irritability, opium is the sovereign remedy. But you will find few cases indeed in actual practice of this purely uncomplicated character; and if your acumen enables you to recognise the local affection, and your remedies *can subdue* it, you will cure your patient; but if you lose him, and post mortem examination shall disclose to you the fact, that you treated him for the disease he in reality laboured under, how satisfactory will be the reflection that you did all that human art could do for him, when compared with the mortifying feelings that must result from a different autopsic revelation.

Chester, September 2, 1834.

ART. VIII. *Observations on Cachexia Africana or Dirt-Eating.* By F. W. CRAGIN, M. D., [Communicated by Prof. R. D. MUSSEY.]

This disease, termed also "mal d'estomac" by the French, is common and too often fatal in the West India islands, and that part of South America known under the general name of Guiana. It is now carrying off numbers in the colony of Surinam with as much certainty as phthisis pulmonalis is in the United States, scarcely a single well-confirmed case being cured; nor is it curable by the common mode of treatment there pursued from a mistaken view of the pathology of the disease. No age beyond three or four years at the farthest enjoys an immunity from its ravages.

The first symptoms are ordinarily fever at irregular intervals, succeeded by sluggishness, which, as the disease advances, nearly amounts to insensibility. The face, the upper and lower extremities—in fact the whole external surface is of an unnatural shining fulness and roundity, yielding in a slight degree to the impression of the end of a finger pressed strongly upon the part, leaving a depression after the

finger is removed; this is especially the case with the feet and ankles, while in other parts no such depression is made; these last approaching in that particular more nearly to the state of elephantiasis than to oedema.

The conjunctiva is of a peculiar snowy whiteness, untinged by a particle of red blood, while the eyes participate in the general fulness, making them appear somewhat prominent, and giving to them altogether a sort of unmeaning yet characteristic stare, which, so far as my observation goes, is peculiar to this complaint. The marble paleness of the lips, of the palms of the hands, and of the soles of the feet, indicates an impoverished state of the blood. The diagnosis may be nearly formed from the pallid appearance of the lips, the gums, and the whole membranous lining of the mouth, and from the condition of the tongue, which in health performs its duty with so much alacrity, lying bleached and bloodless, scarcely able to represent the motives of its owner.

The patient evidently suffers from a sense of cold, as is evinced from an inclination to bask in the sun's rays, even in the hottest part of the day.

There is much palpitation and throbbing of the temporal arteries, while the pulse at the wrist are small, frequent and slow; quicker, however, after the slightest exercise, after eating, and on the approach of evening.

The secretions are generally diminished; perspiration is suppressed, the urine is scanty, and there is an apparent total suppression of the bilious secretion; costiveness generally prevails in the commencement of the disease, but in its more advanced stages the alvine discharges are increased in frequency, differing from four to ten or more in four-and-twenty hours, of a thin consistency, and unmixed with bile. In the confirmed and further advanced stages of the disease, a few hours are sufficient after deglutition for the digestion of the food, when it appears in some cases to have undergone a slight, and in other cases, no change whatever in its passage through the alimentary canal. The stools, however, become more watery, dark, and fœtid, as the disease draws to a close.

The appearance of blood drawn from the arm is invariably unnatural; it is thin and watery, of a livid purple hue, assuming neither the bright red of arterial, nor the dark red of venous blood; and wanting the consistency of either, it presents that semiturbid appearance which is a concomitant of a gradual but general decay of the powers of life.

The liver or spleen is generally increased in size, not unfrequently

both. The lymphatic glands are enlarged and frequently indurated; often fifteen or twenty, or even more, of the inguinal glands may readily be distinguished by the feel, and many of them may be seen forming a tumour of no ordinary size in the groin.

Another essential and leading symptom of this disease, is a universally depraved appetite, and an ungovernable determination to the eating of dirt. The only appreciable signs of mental activity exhibited during the course of this disease, are the crafty and cunning plans which the patient most subtly matures, and as stealthily executes, to procure his desired repast. This consists usually of charcoal, chalk, dried mortar, mud, clay, sand, shells, rotten wood, shreds of cloth or paper, hair, or occasionally some other unnatural substance. Some pick and eat shreds from the garments they wear, till it can no longer be kept upon them; others swallow with avidity the hair which they pick from their own heads, until they are nearly bald before they are detected. Some negroes eat their tobacco pipes, and those of the other negroes. I was informed by a gentleman of the strictest veracity, that a negro on his plantation was thus morbidly fond of young rats, which he swallowed whole. The man, he had observed, had been declining for some time, and at length declared himself unable to perform his accustomed labour; he was accordingly ordered to the lazaret of the plantation, where the gentleman shortly called to see him; he found him with an empty calabash in his hand, with nausea, pain in the stomach, and a disposition to vomit; after labouring for a moment, he "brought forth" (from the stomach) "a mouse." There was not a single mark of mastication upon the little hairless quadruped, nor had it apparently been many minutes incarcerated; but, probably, being swallowed alive, irritated the stomach, and produced vomiting by its movements in its last struggles for life. The negro then acknowledged having thus indulged himself, so far as had been practicable, for months.—Peculiar to children under the age of ten or twelve years, and, late in the course of this disease, a state of ulceration often comes on, mostly confined to the cuticle and cutis vera of the feet, legs, and thighs, but sometimes the nates, as well as the hands and arms, are also affected. I seldom had an opportunity of noticing the progress of this ulceration until it had established itself in the true skin. It appears, however, from observation and inquiry, that at the commencement one or more small whitish and nearly round spots are observed about the ankles and feet, which somewhat resemble the first appearance of that also frequent and fatal disease, the "lepra," with which, however, it has no real connexion; the spots in the disease under consideration are of a deadly pale cast

or ash-colour, while those of leprosy assume a more lively and copperous redness. These spots or discolorations become daily more evident, until at length the cuticle gives way, others successively appear, and advancing in the same manner, also ulcerate. The number of ulcers is, in some instances, very great, from constant accessions, while none are disposed to cicatrize, and in other and very severe cases, the whole number does not exceed three or four.

These ulcers gradually increase in circumference and depth, till the cutis vena is penetrated; some of them are at length confluent, others remain unconnected, and in the most loathsome cases, the feet, legs, thighs, and sometimes the nates present one broad surface of ulcers, some small, and others running into each other, forming patches of greater or less extent.

When this ulcerative process commences, there is frequently mixed with the feces a small quantity of blood, and in one case which I saw attended with prolapsus uni, the lower part of the rectum was thickly studded with ulcers, small, but in other respects similar to those situated externally.

These ulcers of the skin are of the indolent kind; they have no raised or bordered edge, and actually discharge but very little, their surfaces being merely kept moistened by a colourless and apparently bland fluid, with no palpable signs of granulation. In this state of the disease the patient becomes more anasarcaous, not alone in the extremities, but the whole body, inasmuch that the features, however familiar they may have been, are quite obscured in the general tumefaction.

The diagnosis in this disease is by no means difficult; yet the patient, when accused of dirt-eating, which is too often urged as a voluntary crime, rather than an irresistible disease, invariably denies the charge. Under these circumstances, it may be necessary to resort to stratagem to detect him in the act, and make him feel and know that further prevarication is useless. If indigestible substances are swallowed, it is only required to wash the fecal dejections in water; after frequent rinsings the residual indigestible material decides the point at issue. In Surinam, the result of such a process is frequently a quantity of broken shells. The town of Paramaribo being partially situated upon a bed of marine shells, and the streets and walks of plantations as well as of the town being made and repaired with the same material, it is very often seized upon by dirt-eaters to appease that appetite which gives the character to this disease.

As curative means, neither promises nor threats, (even when put in execution,) nor yet the confinement of the legs and hands in stocks

and manacles, exert the least influence; and their preventive effect is as temporary as their employment; so great is the depravity of the appetite, and so strongly are the unfortunate sufferers under this complaint subjected to its irresistible dominion. A metallic mask or mouth-piece, secured by a lock, is the principal means of security for providing against their indulging in dirt-eating, if left for a moment to themselves, nor does this effect a cure or save the life of the patient.

The "Dictionnaire des Sciences Medicales," under the head of *mal d'estomac*, mentions several cases of remarkably diseased appetite; but so close is the connexion, amounting almost to identity, with chlorosis, that it would seem very little was known of the former, as a separate disease, unconnected with the latter.

Dr. John Mason Good also assigns as causes for *Limosis Pica*, (which he says has been called *mal d'estomac*, or *cachexia Africana*), pregnancy, chlorosis, and some species of mental emotion, and considers it to be a primary affection only when it is occasioned by the vanity of persons who accustom themselves to some empirical material, with a view to improve the form or complexion.

In a work published in London in 1811, entitled "Practical rules for the management and medical treatment of negro slaves in the sugar colonies, by a professional planter," the author, in speaking of *mal d'estomac*, or dirt-eating, says: "it is the effect of relaxation, and its natural concomitant an impoverished state of the blood, arising commonly from mean diet, and may be produced by any other cause which induces a laxity of the solids." "The power of the passions," he observes, "in producing that effect, is very well known; and we find that negroes labouring under any great depression of mind, from the rigorous treatment of their masters, or from any other cause, addict themselves singularly to the eating of dirt."

Without being competent to remedy the defect in our medical knowledge, I am confident the true causes and means of cure have never been well understood. Many scientific authors who mention this disease, have evidently no experimental knowledge of it; and others, who have had opportunities for information, have too generally confined themselves to superficial observation and pre-established opinion.

When we reflect that dirt-eating respects neither age nor sex, there needs no further argument to prove it to be a distinct disease, and in no way connected with chlorosis or pregnancy; and there is sufficient reason to believe that the disposition to eat chalk, clay, earth, and other absorbents, arises from an acidity of the stomach, which is so troublesome in chlorosis and pregnancy, but which—the opinions of

others notwithstanding—I have learnt, is by no means a general attendant upon the disease under discussion. From the fact that no age, from a few months, or years at most, is exempt from its ravages, we can neither admit as a cause an accustomed use of empirical materials, nor a melancholic or any other affection of the mind. The effect has been mistaken for the cause. The universal stupor and inertness of the faculties, both mental and corporeal, is an effect of the disease—not a cause arising from a bereavement of friends and home, of joys and kindness: and it may not be amiss to mention the following one of the many facts that go to prove this position. Persons living on the same plantation, perhaps on the identical section of the same plantation, on which they were born and reared, with all their friends around them, and by indulgent masters and owners, who are themselves the *real* slaves, while the owned are only *nominally* so, provided with ample food, raiment, and, if necessary, medical aid, are also subject to this malady.

The intellectual powers probably suffer in some ratio, depending upon the extent of the disease, and the dominion it obtains over the bodily powers.

As I have observed, wherever the disease is met with, the patient is listless and stupid almost to idiocy, and apparently regardless of comfort, or even of life itself. That superficial observers should look upon this in adult negroes, recently kidnapped and carried into slavery, as a cause, is not wonderful; but the fallacy of such an opinion is evident from the fact, that this same mental and corporeal torpitude prevails as one of the most prominent features of the complaint, alike in the free and in the bound—in the adult and in the child—in the foreigner and in the creole—in the mulatto, mustese or castese, and in the negro. With regard to the dark spots occasionally observed upon the tongue, resembling spots of ink, they are neither indicative of this nor any other disease—they are perfectly compatible with health, but are seldom met with. They are confined, I believe, to people of colour, and occur as often in the healthy as in the unhealthy, and perhaps depend upon accidental deposits of black pigment, to which is owing the colour of their skin.

How far constitutional peculiarities may predispose to this disease, I am not prepared to say; their influence is probably slight; there are, however, probably few diseases which are not in one way or another affected by various internal and external circumstances, though these are, nevertheless, not considered as causes. I have seen no evidence of its being hereditary. An improper diet is one cause of this complaint, but I knew of instances where the patient was not subject-

ed to such a diet; and, of course, it is not the only cause. Exposure to cold, as from sleeping in damp situations without suitable covering, is another cause.

From the insidious manner in which the disease under notice makes its inroads upon its victims, and the great care they take in concealing it, or what is more likely, from a general belief that it is irremediable, I have seldom been called (during a practice of nearly five years in Paramaribo) to administer to a patient labouring under this frequent malady until the ulcerative stage had commenced, and the fate of the patient thereby irrevocably sealed. Many of the cases that came under my view, I met with accidentally, and to most of them it was inconvenient, if not impossible to return. I had, however, determined upon investigating the subject, and ascertaining if it were possible to devise some better mode of treatment than was generally practiced. I left the colony soon afterwards, having proceeded but little way in my investigations. Opportunity may again offer, when I shall resume my attention to this disease; and in the mean time, if there can be disclosed a method of cure which is somewhat successful, it will enlighten at least one, and not improbably prevent the otherwise premature death of many.

Greenfield, Dec. 10, 1834.

[In the *Edinburgh Medical and Surgical Journal* for April, 1833, there is an interesting paper on dirt-eating by DAVID MASON, Esq. which as it affords information on some points which Dr. Cragin's opportunities did not enable him to investigate, we shall present some notice of here. In Jamaica, where the author witnessed the disease, it is, he states, commonly brought on by long abstinence, bad food, and an irregular and inadequate supply. The persons most exposed to these privations are fugitive negroes, who have absconded from their homes, and lead a wandering and necessarily watchful life, without any certain or constant means of subsistence; and the indolent negroes who, from mere laziness, neglect the cultivation of their provision grounds, and are thereby exposed to similar wants. These last sometimes resort to the practice designedly to produce ill-health, as a means of evading work. "The train of symptoms that progressively arise, are," according to Mr. Mason, "indigestion and emaciation, a bloated countenance, a dirty-yellow tinge in the cellular tissue of the eye-lids; paleness of the lips and ends of the fingers; whiteness of the tongue; great indolence, with an utter aversion to the most ordinary exertion; palpitation of the heart; difficult or rather frequent and oppressed respiration, even during moderate exercise, which never fails to induce a rapid pulse; habitual coldness of

the skin; and occasional giddiness of the head, attended with a disposition to faint, sometimes causing a state of stupor. As the disease continues and advances, dropsical effusion takes place in the thorax or abdomen, or both. The texture of the blood and other fluids become changed; the blood appears pale and watery."

These symptoms coincide very nearly with those observed by Dr. Cragin, and seem for the most part the result of an anemic condition, caused by imperfect nutrition.

Dr. C. appears to have had no opportunities of making post mortem examinations, and it may therefore be interesting to state the appearances on dissection met with by Mr. Mason, though his examinations do not seem to have been made with the degree of minuteness which modern pathology demands. The stomach being the primary seat of the disease, it might be expected, says Mr. M. that it "would show peculiar morbid changes on dissection, but in those cases which I have examined after death, these appearances were not very remarkable. The internal surface was usually covered with a whitish viscid matter, probably thickened mucus; the liver was generally found hard and condensed; and the gall-bladder filled with dark-coloured bile, nearly resembling tar in consistence and appearance." In the cavities of the heart, both auricles and ventricles, Mr. M. has seen, in many instances, "a kind of fibro-albuminous or gelatinous polypi, having long attached appendices floating loosely in the cavities, and the extremities of which are extended into the orifices of the great arteries. These polypi do not fill the cavities, but closely embrace the columnæ to which they are slightly attached; and the appendices are long, loose, fibrous-looking processes, which, although projecting into the pulmonary arteries, as well as aorta, by no means fill the orifices, nor are they found in the vena cava or pulmonary veins." They are compact, colourless, and insoluble in water or alcohol.

In a curative view, the first step, according to Mr. Mason, is, if possible, to reclaim the delinquent negroes from their slothful habits, to furnish them with the necessary quantity of food, to enforce cleanliness, and furnish proper clothing.

The strictly medical treatment recommended, consists, *first*, in the administration of emetics and purgatives, and afterwards a continued course of such tonic medicines as act more directly on the digestive organs. The best tonics Mr. M. considers to be a bitter laxative, infusion of lignum quassia, rhubarb and ginger, in a pint of which eight or ten grains of sulphate of iron is dissolved. "I have generally found," says Mr. M., "the use of soda or potassa beneficial, and have combined either of them with these medicines, by dissolving one

or two drachms in the above infusion—of course the sulphate of iron by such combination will be decomposed. By a little agitation, however, the iron will be taken into the stomach in the state of oxyde—a form into which it is perhaps finally reduced in the system. Nevertheless, if this prescription should be considered objectionable, because unchemical, the iron may be given separately, either in the form of muriated tincture, or a simple solution of the sulphate in water. It is too essential a part of the remedy to be omitted."

In the above advanced stage of the disease, and when dropsical effusion and hepatic disease make their appearance, Mr. Mason considers an alterative course of calomel and opium necessary. Where there is merely anasarca unaccompanied with hepatic disease, he considers the tonic laxative medicines above recommended, with blisters to the lower extremities and attention to food, cleanliness and exercise as often competent to effect a cure.

Mr. M. deprecates as most pernicious, the practice of confining the patient, in order to prevent him from obtaining the hurtful material: and free air and exercise he considers as necessary to the cure.—Ed.]

ART. IX. *Fever, with ulcerations of the intestines and hæmorrhage*,
By AMARIAH BRIGHAM, M. D., of Hartford, Ct.

I am induced to send for publication the following cases, accompanied by a few remarks, believing that it is only by the accumulation of facts that we can reasonably expect ever to solve the mystery that has for thousands of years enveloped the subject of fever.

Mrs. B. of this town, aged sixty-nine years, was attacked about the middle of September, 1835, with the symptoms of continued fever then prevalent in this city.

She was not at any time considered dangerously ill, and the sixth day of October was thought to be convalescent, when suddenly a profuse hæmorrhage from the bowels terminated her life in six hours.

No examination of the body was had.

About eight or ten days after this, Mr. Stuart, son of Professor Stuart, of Andover, 22 years of age, student of law, and a boarder in the house with Mrs. B., was attacked with the symptoms of the same fever, but of a mild character. He had slight chills at first, with headache, and complained of weakness. His tongue became coated, and he had some thirst. After taking laxative medicine, the head-