contribute to the healthy growth of the plant. *Quick lime* is of the first kind; it forms a sort of soapy compound with the vegetable matter, and turns it into that state in which it will be absorbed by the growing plant; it absorbs carbonic acid from the atmosphere, and becomes converted into chalk, of itself frequently a valuable addition to the soil. This shows the value of applying the lime when recent, and in moderate quantity, to the soil; and if it could be strewed on the soil immediately as it is taken from the kiln, so as to be mixed with the vegetable matter intended to be destroyed, the effect would be still better, since the principal object with which the lime is employed is lost by allowing it to remain in heaps. Some limestone contains magnesia, and as such does not slack and absorb carbonic acid; it remains always caustic, and so destroys the young plants; and many crops were in this way destroyed before the cause was discovered. It has been said, that *gypsum* has been sometimes found a good manure; and salt has been very much extolled; I believe that a great deal more has been said of it than it deserves; it certainly destroys insects, but I do not believe what has been said of its value. We are not to infer that because a manure is found to be useful on one soil in a certain climate, that it shall prove equally useful in others; experience must direct us in this particular.

This, then, is a brief epitome of what we know of the structure and functions of plants. Now, the next question is, of what are vegetables composed? What are the elements which nature employs in their constitution? Here you will be struck with their extreme paucity. Carbon is the chief ingredient, oxygen and hydrogen are generally added, and some nitrogen; and if you state these, you have stated the most important of their elementary principles.—There are minute portions of other matters, but they appear rather adventitious than essential; accordingly, if you come to the analysis of vegetable matters, be they what they may, whether you examine the narcotic plants, or that peculiar exudation from the poppy, opium, or the concrete juice of the sugar-cane, or gum, or starch, or what else; however materially these vegetable products may differ from each other, in what may be called their proximate component parts, their ultimate elements are very few. If you subject a vegetable matter to destructive distillation, you merely obtain those substances which may be generated by the union of the elements I have adverted to; and supposing these to be carbon, oxygen, hydrogen, and nitrogen, you may have a great variety of compounds; you may have carbonic oxide, carbonic acid, car-

buretted hydrogen, water, oil, wax, resin, gum, sugar, starch, acetic acid, cyanogen, hydrocyanic acid, nitric acid, ammonia, carbonate of ammonia, nitrate of ammonia, acetate of ammonia, and so on. You will have a great number of compounds resulting from the peculiar combinations of these elements, but as acids, the principal are the acetic or vinegar; the hydrocyanic, or prussic acid, and nitric acid, may be procured. So freely is the acetic acid furnished by vegetable matters, that we are now principally supplied with this acid from that source. When vegetables are submitted to destructive distillation, there comes over at first a quantity of gaseous matter, which may consist of any of the substances named. Finding these substances produced, the old chemists thought that vegetables were composed of oil, water, and air, not knowing that the elements of which the vegetables were composed were capable of affording, under the influence of heat, such a great variety of proximate or secondary products as I have enumerated. Of late, chemists have attempted, not to determine what substances are thus produced, but in what proportions carbon, hydrogen, oxygen, and nitrogen are combined in the different substances, and this is the most accurate way of arriving at it, and indeed it has already taught us a good deal of the ultimate constituents of vegetable matters in general.

In the next lecture I shall briefly state the processes by which this knowledge of the ultimate constituent of vegetable matters is most accurately obtained.

FOREIGN DEPARTMENT.

On the Diseases which are observed in Egypt, and on the actual state of Medicine in Arabia.

BY DR. EHRENBURG.*

THE physicians whom Drs. Ehrenberg and Hemprich met with in their travels to Cairo, Suez, Damietta, Syria, and Arabia, only presented a glimmering of the knowledge which existed formerly in those parts; they appeared conscious of their ignorance in the presence of the European travellers, and had no idea of the nature or treatment of diseases. The Canon of Avicenna is still their oracle. The most modern work on their art is that of David. In order to become a physician, it is necessary to make several copies of these works, and to learn

* Hecker's Litter. Annal. der gesammten Heilkunde; Janv. 1827, p. 1.

hem by heart. Bleeding, scarifications, application of cupping glasses, and circumcision, are the common surgical operations performed. Monks sometimes undertake amputations and castration. Dislocations are often left to themselves after unsuccessful attempts to effect their reduction; fractures are seldom united. Penetrating wounds from fire-arms are at first washed and cleaned with wine; then twenty or thirty threads, smeared with some kind of balsam, are introduced in the same manner as a seton; each day the threads are changed, and the number is gradually diminished by the subtraction of one thread at each dressing; the removal of the thread promotes the exit of pus, foreign bodies, and splinters from the wound. The patient is generally cured at the end of twelve or fifteen days, and fistulous openings seldom remain.

In inflammatory diseases, the medicines employed internally, are cream of tartar, nitre, grains of succory, leaves of rosemary, tamarinds; and the means used externally are cupping glasses, and scarifications with a razor; in ophthalmia, antimony is given during the inflammatory stage, and this treatment appears to be one of the causes of the great number of blind in this country. In bilious diseases, which the Arab physicians only recognize by the yellow tint of the body, tongue, or eyes, scammony, fruits of several kinds of *terminalia* and *phyllanthus emblica* are given. Anchusa is, with them, a specific. In dropsy, scarifications and cautery are employed; drastic purges are also given, with diuretics. In diseases affecting the mucous membranes, such as catarrh, &c., small doses of ipecacuanha, sage, tea, grains of paradise, and cardamom, licovite, and sebestin (fruits of *cordia myxa*) are used. In dysentery, grains of rhus coriaria are employed. Assafetida, and the root of the *cyperus fuscus*, with a small fruit of undetermined origin, called *mahleb*, *ischamum schenanthus*, mixed with flour, are considered the best medicines for abdominal diseases.

Arabian physicians recognise, moreover,

1st,—Diseases of the skin, which they treat with purgatives, emollient applications, and baths. Frictions of butter and sulphur, or verdigris, are used in the itch; pressed grapes of Corinth are employed in elephantiasis; no cure is known for leprosy; the properties of myrrh, in malignant ulcers, are not known, although it is indigenous in Arabia. The warm baths of Birket Faraun, on the Red Sea, are said to have cured several obstinate diseases.

2nd,—Worm diseases, in which senna and other purgatives are made use of, but without any great success.

3d,—Syphilitic diseases, which are treated with sarsaparilla, and a kind of wood

which comes from India, and called Chinese wood.

In diseases of the eyes, washes of diluted vinegar, zinc, vitriol, and saturnine water, and very frequently crude antimony, with the pulverised grain of the *cassia Abous*, are used. When the inflammation is very violent, scarifications are resorted to. The physicians are generally druggists; they are not respected, and their art is by no means lucrative. The diseases little known to Drs. Ehrenberg and Hemprich, which they observed in Egypt, were—1st, an eruption called *hydraea aestivum Aegyptiacum*. Small miliary pustules, filled with serum, and appearing on the skin; these dry, and are followed by a fresh eruption, but not attended with any constitutional derangement, accompanied with a troublesome itching. This eruption manifests itself every year, at the overflowing of the Nile, among the Franks, Turks, and Arabs, whilst the Nubians, Dongolians, and Negroes are free from it. In children and persons who have a tender epidermis, the pustules run into each other, and are filled with pus, but they leave no marks after them. After the inundations this disease disappears.

2nd,—Erysipelas of the scrotum in mariners. (*Intertrigo scrotalis navium*.) The skin of the scrotum is greatly inflamed, painful, and sometimes relaxed; its whole surface secretes a puriform matter; the disease disappears on landing, but instantly returns when the patient is on ship-board. The Arabs suffer from it less than the Franks.

3d,—Acute diseases of the knee-joint. According to some accounts, this rheumatic affection sometimes prevails epidemically in Egypt and Arabia; in Alexandria it is supposed to be contagious; it soon manifests itself by pain in the knee, which increases on pressure; gastric fever generally comes on. The disease usually lasts but nine days, and a relapse seldom occurs.—Dr. Hemprich was affected with it in a slight degree.

4th,—Rheumatic ophthalmia of Egypt is very frequent among the inhabitants. The affection of the eyes first shows itself in a slight redness of the conjunctiva, with a sense of weight on the eye; on the next day the pressure is less, but the eye cannot support the light, and the conjunctiva is completely tinged with red, and inflammatory pulse; there is very often sneezing and want of appetite; one eye is generally worse than another; sometimes one alone is affected.

On the third day, if the disease be not checked, the conjunctiva is of a varicose appearance; the edges of the lids are rather cedematous, and glued together by a viscid mucus. A flow of tears escapes when this mucus is removed by water or warm milk;

the lids remain open only when they are kept separate.

In the last stage of the disease, the conjunctiva becomes spongy and swollen to such a degree that the lids cannot close. The cornea is deeply situated in the middle of this mass, and seldom becomes affected; vision does not suffer.

In some, this disease sometimes terminates very unfavourably. The transparent cornea is sometimes affected, and vision is lost. In some the inflammation gradually disappears, the globe of the eye either wastes away, or preserves its usual size. In others, the inflammation passes to the chronic state, and becomes very obstinate; there sometimes only remains an insupportable pain at the bottom of the eye, without much alteration externally. The state of convalescence is long, when the disease has been violent; vertigo, and pain in the head, when it is bent forwards, and imperfect vision, often remain after the disappearance of the redness of the eye.

The two European travellers could not discover that the disease was contagious; and the miasmatical character, which it assumed at the time of the French expedition, appeared to be accidental. M. Eherenberg is not aware of any symptom which distinguishes the ophthalmia of Egypt, from the common rheumatic ophthalmia; but the following difference exists in the ophthalmia of Europe, and that of Egypt: viz. that the former principally attacks the lids, whilst the globe of the eye chiefly suffers in the latter; dust, heat, putrid emanations, irritation of the eye by light reflected on planes of white sand, &c., are not, as is commonly said, the principal causes of the ophthalmia of Egypt; this complaint is produced by the changes of temperature and the state of atmosphere.

STRICTURES ON THE CONDUCT OF THE PROFESSOR OF CLINICAL MEDICINE AT THE HOTEL DIEU, PARIS.

We are glad to find, that there has been established in Paris a journal, the object of which is to record the cases of interest as they occur in the Parisian hospitals, to exercise an active surveillance on the medical officers of these establishments, and to give abstracts of the lectures of the most distinguished teachers in that metropolis—the three leading features by which *THE LANCET* rose into notice in this country, and obtained that ascendancy which it now possesses.

The journal is called *La Clinique*, and is published three times a week on a fly sheet. In the number for the sixth of May, we find the following account of the manner in which the professor of clinical medicine,

M. Recamier, at the Hotel Dieu, discharges the important duties attached to that office.

“For the last eight or ten months, we have seen the professor commence his visit sometimes at six, at seven, more frequently from eight to nine, often at ten, and sometimes even at eleven o'clock, and all these variations, as to time, occurring in the space of fifteen days! His clinical lectures are as uncertain as his visits; he commences a course, suspends it, resumes it, and then breaks it off for whole months. Since the 14th of April, the course has recommenced; the professor never arrives at the hospital until half past nine, just at the moment when the time for visiting the hospitals is expired, and when the students are obliged to attend the lectures delivered at the *Faculté*, or by their private teachers. The chair, then, of clinical medicine, at this hospital, is really vacant.

“It is with great regret, and in violence to our feelings, that we have given utterance to these observations. The character (private, we suppose) of the professor, is generally held in high estimation; his talents are good, and his information extensive and profound; and although there exists between us a difference of opinion on several questions, we wish to be amongst the foremost to recognise the light which he has spread on a number of obscure pathological points.”

HYDATID OF THE LIVER.*

A man, thirty-four years of age, was recently admitted into the Hotel Dieu, under the care of Professor Recamier, with a tumour of eighteen months' standing, in the region of the right lobe of the liver. The tumour had gradually increased in size, and, at present, occupies the whole of the right hypochondrium. There is no pain whatever on pressure; the complaint produces no disturbance in the principal functions of the economy, and its principal inconvenience is that of preventing the patient from pursuing his ordinary occupations.

In another case, of somewhat the same nature, which Professor Recamier had under his care last year, he made an opening in the tumour with a trocar, by which a liquid, containing hydatids, was evacuated. The opening was healed up, and the fluid allowed again to accumulate; and when the swelling had again become prominent, caustic potass was applied to the parietes of the tumour and the cyst, for the purpose of producing adhesion between the cyst and the parietes, and establishing a communication between the interior of the cyst, and the

* *La Clinique*, May 6, 1828.