nutritive matter in different kinds of animal and vegetable food, and which has led to the belief that the article which contains the most of that supposed prototype of nutrition, called *protéine*,* would be solely of itself the most nourishing. Among the vegetable class, it is found that peas, lentils, and beans, contain a very great proportion of this *protéine*, and therefore might appear equal, if not superior, in nutritive qualities, to many articles even of an animal nature. But the practical dietetic question is not what contains the greatest amount of nutrition, chemically considered, but what is found by experience most fitted and salubrious for men in the several circumstances in which they are placed. From not considering all the non-naturals, scurvy has appeared in some prisons where the dietary has been fair, as in the Lincoln City-gaol and House of Correction, where boiled beef four times a week, twice fresh and twice salt, with bread and farinaceous vegetables were given, and on the other days, broth thickened with oatmeal was distributed. In other prisons, again, no scurvy has appeared under a diet of twenty-four ounces of bread daily, together with a pound of potatoes and four ounces of oatmeal, as in the Monmouth county gaol, by last public report.

To obviate any danger of diseases of debility arising from a low diet, and to deprive the magistracy of all discretion in this respect, Government has lately, with a kind and liberal hand, laid down a general table of diet for all prisoners, which is sufficient for the benevolent objects they have in view, however little it may operate in the wished-for object of repressing crime.

A chief and primary object in the erection of prisons and workhouses, is their site; no attention and judgment should be neglected to have them erected in the most salubrious situations possible, as a due and strict regard to this step will afterwards compensate for many errors or deficiencies in diet and discipline that may temporarily or unwittingly take place. The great object, and it is one of great difficulty to the authorities, is so to regulate the diet of workhouses and prisons, that it shall not be so ample and generous, as to be a sort of bounty on crime or idleness, or above what an honest labourer is able to procure out of doors from his daily wages, nor yet be so low and meagre, and innutritious, as to run the obvious risk of bringing on debility and asthenic diseases, for the law only condemns to confinement, not to starvation. We, as medical men, may occasionally be called upon to give our opinion on these matters, especially when any ailments are alleged to arise from a want of sufficient food. It behoves us, then, to take a very circumspect view of the whole circumstances, and not yield too hastily to our benevolence. The

site, atmosphere and water should be examined as well as the diet, and even the prevailing *morale* of the place. We ought to compare the affections or diseases complained of with the amount and nature of the diet, to see if there be any physiological connection, and in deciding on an amelioration of diet we ought also to consider how much more, or what change will have the nearest and most economical effect in accomplishing the object that is in view.

We shall, in next lecture, enter upon the subject of employments, as they severally affect the health of individuals and the duration of life.

ON THE TREATMENT OF DROPSY WITH CROTON OIL.

By GEORGE FIFE, M.D., Physician to the Sunderland and Bishop Wearmouth Infirmary.

[FOR THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.]

The great diversity of the forms in which dropsical effusions are met with, and the variety of causes on which they may depend, must abundantly demonstrate the irrationality of extolling any particular plan of treatment, as possessing universal efficiency or as being of similar applicability. My sole object in now addressing my professional brethren is to communicate to them results, which have in the cases hereinafter to be mentioned, most agreeably surprised myself and those who have had the opportunity of witnessing them. Should a further trial in the hands of others prove equally satisfactory, it will to me be a high source of satisfaction, more especially, as with a very few exceptions, I have never known the operation of paracentesis ultimately successful; but on the contrary, have looked upon the operation, however efficacious in relieving suffering it may sometimes prove, as neither more nor less than the death-warrant of the patient.

Few as the cases are in number on which the following remarks rest, their character being all dependant on, or complicated with organic disease of important organs, seems to add to the value of the remedy, as from such complication the cases were necessarily of the least favourable nature for the trial of any medicine. To this circumstance must be ascribed my anxiety to have the remedy fairly tested by those whose opportunities may be more extensive than my own. I will now, as concisely as possible give an outline of the cases in which this medicine has been employed by me, and the results by which its exhibition has been followed; and this shall be done in the plainest possible manner, from the conviction that the most certain of all means of improving our knowledge is the simple and unvarnished record of facts by men possessing the opportunity of observation.

The first case in which I used the croton oil was that of a young woman, twenty-five years of age, who had suffered from ascites of between five and six years standing, and for the relief of which, in consequence of the enormous distension, the operation of paracentesis

* *Proteine* is composed of carbon 48, hydrogen 36, nitrogen 6, oxygen 14, and contains neither sulphur nor phosphorus, which caseine, albumen and fibrine are always found to do, besides the basic element of *proteine*.

had been frequently and urgently proposed. She first applied to me in May, 1843, when she underwent the usual course of treatment, including elaterium, which was pushed to the utmost justifiable extent, without however in any degree permanently diminishing her size, of which it may be enough to state that her circumference at the umbilicus somewhat exceeded ten feet. After persevering in the use of this remedy with mercurials, and iodide of potassium, &c., until the middle of June, I, at the suggestion of Mr. Huntley, of Howdon, near North Shields, with whom I was at the time attending in consultation, resolved on giving the croton oil a fair trial. It is right to state, that previous to the employment of the croton oil, Mr. C. Embleton, whose patient she was, had, at my request, introduced an explorator, which was followed by the discharge of a clear straw-coloured fluid, coagulable by heat. The discharge, however, was of such very trifling extent that no importance can be attached to it, more especially as it was previous to recourse being had to the croton oil, and appeared to exert no influence over the disease. I mention this circumstance, then, not from any connection which it had with the treatment subsequently pursued, but in order to afford every possible information on the nature of the case.

Her general health was at this time evidently on the decline, in consequence of which the operation was seriously thought of, and a main reason of introducing the explorator was to ascertain the character of the fluid effused, as a gentleman, who had formerly seen the case, was very positive in affirming it to be one of sacculated ovarian dropsy; an opinion which I never for one moment entertained, even although he informed me of the existence of an ovarian tumour. My principal reason for dissenting from such view was, that the distension did not present the characteristics which in cases of encysted ovarian dropsy I have invariably met with—and more particularly may be mentioned the uniform and equal distension of the whole abdomen, and the facility with which the immense quantity of fluid was made to gravitate or pass from one part to the other, without any palpable difference. This, according to my experience of ovarian dropsy, except when a single cyst only exists, is never the case.

The croton oil was commenced with in doses of three minims every night at bed-time, and had been taken a very few days when the tumour sensibly subsided, and became soft, instead of being, as formerly, as tense as a drum. The remedy was steadily and uninterruptedly given for at least ten or eleven weeks, and the swelling very rapidly diminished; pressure being at the same time made by means of a very broad band, which was constantly kept applied, its tightness being increased as the enlargement required. One remarkable fact connected with the continued employment of so harsh and drastic a purgative is, that it never, even when operating most powerfully, gave rise to any unpleasant symptom, but on the contrary, the patient daily improved both in health and appearance. The only complaint she ever made was of languor occasionally, when its action had been more severe than it generally was. In short, at no time was there either hypercatharsis or any dysenteric symptom present. As the quantity of fluid lessened, a tumour in the right iliac region became very distinct—evidently ovarian and quite moveable—in size, equal to the mature foetal head. On the left

side there is also enlargement of the ovarium, though to a much smaller size.

The medicine has now been discontinued for many months, and no increase of fluid has ensued; the only medicine resorted to or required being gentle aperients, and this only to an extent infinitely less than requisite to many healthy persons. Her greatest circumference, in the same situation as above-mentioned, and at a lower point where the projection is now greater, is no more than three feet. The diminution of size is therefore not less than seven feet.

The next case was that of Bartholomew Queeny, aged 40, a patient at the dispensary. When admitted he laboured under ascites and anasarca, evidently depending on heart disease, which latter was found complicated with organic disease of the lungs, and which, had he lived, I have no doubt would have terminated in phthisis. In consequence of the dyspnoea being urgent, and the abdominal effusion manifestly on the increase, I resolved on giving him also the croton oil, which he took for some time with the greatest possible relief, and the most decided reduction of both the ascites and anasarca. In fact, for a time, the improvement was so great as to lead me to hope that a state of comparative health might be secured. His chest symptoms however became worse, and he sank exhausted, not however by the means employed, as they had for some time been discontinued, in consequence of the dropsical symptoms being so much ameliorated.

The third case in which the same treatment was employed, and with equal benefit, was that of George Lumley, aged 20, a gentleman's servant. When admitted into the infirmary he was suffering from ascites, very great œdema of the whole lower extremities, and great derangement of the function of the liver, which symptoms, taken in connection with the previous history of the case, led me to consider it as one of dropsy depending on organic disease of the liver and mesenteric glands. Being of a very delicate fibre, the croton oil was given with more care than in either of the previous cases, being omitted for a few nights occasionally. In about ten days after its first administration, the reduction on measurement was found to be seven inches, and a corresponding diminution in the size of the limbs had also occurred. The true nature of the case became more evident than ever, as the liver could be felt distinctly to be enlarged, and the abdominal swelling presented the hard irregular sensation met with in those cases, where we have not only the enlarged mesenteric glands, but where by that subacute inflammation, so common a complication, the whole abdominal contents become as it were one mass, being firmly agglutinated together. The sense of fluctuation quite disappeared, and the biliary secretion, through the use of mild mercurials, became much improved.

In consequence of his being comparatively well, he left the hospital, and went home to Northallerton to his friends, where he continued better for some time, but has since died. In this case also his general health sensibly improved, even when taking the croton oil. The particulars of the cause of death in this case have not reached me, but there can be very little doubt of its termination being by exhaustion and hectic, as

extensive mesenteric disease was but too unquestionably present, and further he had lost a brother under very similar circumstances.

Besides the cases above-detailed, others, of which I have not kept any record, might be mentioned. The above, however, from the complexity of their character, and the serious organic causes on which they depended, seem better adapted to demonstrate the utility of the medicine, as under such circumstances hardly any benefit was to be anticipated from any means that could be employed, and certainly not to the extent which was obtained. As to the termination of the two last cases, no other result was to be anticipated, nor can they be regarded as in any way militating against the efficacy of the remedy in question, seeing that in neither did the patient die of dropsy, but, on the contrary, that in both, all dropsical symptoms had been subdued, and so far the actual condition of the patients improved. In another case, at present under treatment, the improvement which has taken place is also very marked; although the progress of the case at present does not justify me in saying more than that the prognosis is certainly more favourable than, on first seeing the patient, could be anticipated.

From the limited experience which I have yet had of the medicine, I do not wish to impair the value of facts by blending with them theories, perhaps hypotheses might be a more applicable term, a practice by far too prevalent, and pregnant with evil to the advancement of real science.

In conclusion, it may be briefly remarked that the croton oil possesses one very decided advantage over elaterium, viz., that even when its extreme action is manifested, it is not followed by the depression inseparable from the effective action of the latter, but that where the greatest "vis inertie" has prevailed, accompanied by absolute incapacity for exertion, a sensible amelioration in these respects has followed its continued employment. In proof of this, it may be mentioned that in the case at present under its influence, where the slightest exercise was productive of extreme fatigue and languor, the patient can now walk three, four, and five miles in the day without suffering serious inconvenience. For some future occasion I must reserve my opinion as to the causes of its superiority over other cathartics in the class of cases under consideration, as however strong my opinions may be, and however satisfactory to my own mind, facts are too limited in number to warrant me in laying them in their present crude state before the numerous readers of the Provincial Medical and Surgical Journal.

GEORGE FIFE, M.D.

Bishop Wearmouth, Sept. 12, 1844.

CASE OF POISONING WITH HYDRO-CYANIC ACID.

By JAMES GODFREY, Esq., Surgeon to the Bristol General Hospital.

TO THE EDITOR OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

SIR,

The narrative of the accompanying case was deemed worthy of being placed on record by the members of the Bath and Bristol Branch of the Provincial

Medical and Surgical Association, to whom I communicated it. I accordingly have the honour to forward it to you, and remain,

Sir,

Your obedient servant,

JAMES GODFREY.

Bristol, September 11, 1844.

There is, perhaps, no point in toxicology of greater interest to the medical jurist, or of more general importance to the practitioner, than the question of the limitation of voluntary power after a fatal dose of hydrocyanic acid. It is remarkable to observe the discrepancy of opinions on this subject, and the paucity of facts connected with man, which it is ever in the power of the medical witness to adduce. An opportunity was afforded me of observing the dying moments of a person who swallowed a fatal dose, and of carefully noting several facts which occurred in the interval between the taking of the poison and death. I have thought it worth while to detail at length, first, the points presented to my notice up to the time of death; and secondly, the facts which came to my knowledge afterwards.

On the morning of December 15, 1843, I was summoned to the shop of a druggist, to a person "who" as the messenger said, "had poisoned himself there." Running thither with a stomach pump, I found Mr. P. supported in an easy chair, and was informed that it was supposed he had taken half an ounce of prussic acid before he came into the shop, he having purchased that quantity at the same shop two days before. He entered the shop and asked a question, and it was stated that he almost instantly fell, and was raised "gasping and heaving much." I found him in a quiet, easy posture, evidently dying; he was insensible, pale, cold, the jaw fallen, the tongue slightly protruding, and of a natural colour; the pulse perceptible; a faint forcible respiration repeated after an interval of five or six seconds; the eyes of almost natural appearance, dull rather than bright, not prominent; the pupils large; there was no convulsion nor apparent venous turgescence; there was a pale brown stain over his shirt front as if he had vomited; no perceptible smell of prussic acid about the mouth.

At the same time of making rapidly these observations, the collapse became more complete, and I felt the pulse dropping, and the surface becoming momentarily and markedly colder.

A degree of hesitation was in my mind as to prussic acid being the agent, but, reserving speculation, I felt that whether or no, nothing but powerfully and rapidly stimulating the system could be of service; we therefore, (for several surgeons had by this time arrived,) immediately introduced into the stomach, my finger being bitten while opening his mouth, a strong mixture of the compound tincture of ammonia and water, during which he became rapidly colder, and by the time the first fluid was injected, entirely pulseless. On withdrawing the fluid, immediately the smell of prussic acid was evident; we instantly injected a renewal of ammonia with brandy, and endeavoured, by alternating pressure upon the thorax and abdomen, to aid the respiratory powers. By this time I was struck by the increase of temperature of the surface, but there was no pulse, nor sigh, nor sound of heart. I thought that