nervous system, injuriously influence plants as well as animals, showing some effect in common upon organic life, whether manifested in the animal or vegetable kingdom of nature.

In concluding this compressed *résumé* of his subject, the writer would just remark, that the instances cited in illustration of the physiological and therapeutic effects of remedial agents, may not be deemed apt or to the point, and the explanation, (in most cases very imperfectly), attempted to be given, may be termed a *petitio principii*. But the truth is, that we are not able to dip further into the arcana of natural operations, than to express, in very general terms, the method by which changes are brought about in the system under these operations; a statement but little removed from the mere assertion of the phenomena ensuing upon their exhibition. If we may ever hope to deduce general conclusions of a more comprehensive and intelligible character, it must be by very gradual steps supported by trustworthy data, and in accordance with improvements and discoveries in other related departments of science.

21, Edward Street, Portman Square, June 1852.

ON NEAT'S-FOOT OIL, AS AN OCCASIONAL SUBSTITUTE FOR COD-LIVER OIL.

By C. RADCLYFFE HALL, M.D., L.R.C.P.L., Fellow of the Royal College of Physicians, Edinburgh; one of the Physicians to the Western Hospital for Consumption, Torquay.

Our best acknowledgments are due to Professor Hughes Bennett for bringing into general use a remedy so important as the cod-liver oil. To its efficacy, the experience of the entire profession bears testimony. No other remedy of recent introduction has so completely supported the pretensions made in its behalf, or so generally fulfilled all reasonable expectations from its administration. In every case of chronic innutrition, whether from scrofula, tubercle, rheumatism, cancer, syphilis, morbus Brightii, or other visceral disease, with the single exception, perhaps, of disease of the liver, the cod-liver oil is useful, *provided* it can be readily digested. It is not therefore with any intention of recommending a substitute for the cod-liver oil, where that can be taken with comfort, that I direct attention to the internal use of another animal oil; but with the object of showing that we are not without an allied remedy in reserve in certain cases in which the cod-liver oil cannot be made to agree.

More or less, it is usual for the cod-liver oil to disagree at first with the majority of patients, and there are few who do not find it desirable occasionally to intermit its use. But this ordinary amount of disagreement may generally be overcome by perseverance, and by attending to a few little points in the administration of the oil. These little points are,—to commence with very small quantities; to avoid the presence of much fluid in the stomach; to avoid an empty state of the stomach; to take the dose an hour, or less, after a solid meal, when the food is somewhat chymified; to try the different kinds of oil, if

the first disagree; and to try different forms of vehicle, until a suitable one be found.

I may remark, in passing, that it is a practical error to be anxious in every case to increase the dose of cod-liver oil, so long as the quantity taken already seems to be acting well. Just as a very small quantity of iron, in a case of anæmia, will frequently prove an effective stimulus to the formation of red blood, which will afterwards continue to be formed by the natural energy of the system; so, a very small quantity of assimilable oil appears to give an impulse to nutrition, which extends far beyond the mere assimilation of the oil taken in. The case is different, however, when the system suffers from a draining away of its albuminous and oleaginous elements, in the form of great purulent discharge. The oil is then given as much to furnish supplies as to direct their appropriation, and the only limit to its quantity is the dose that will agree.

It is a mistake to ascribe the disinclination of those who object to cod-liver oil to the disagreeableness of its taste, or the unpleasantness of swallowing it. There are but few patients who object strongly to the mere taking of the oil. It is the indigestibility when taken, the slight malaise, occasional nausea, impairment of appetite, and the reminding eructations for several hours afterwards, that naturally cause disgust. By habit, these effects may cease, and the oil eventually be taken with comfort, and even with an acquired relish. Such a result is especially promoted by occasional attention to the liver. Until the system has been for some time accustomed to the oil, the liver is apt to become sluggish under its use. An intermission of the oil for a few days, once in five or six weeks, and the administration of a mild mercurial often appear to do good in every way. But it is not always so. Some patients are positively unable to persevere in taking cod-liver oil without so much derangement of digestion as to make the continuance of the remedy inadvisable; and we cannot always succeed by appropriate preliminary treatment in removing the opposition. In cases of chronic phthisis, cod-liver oil will generally disagree:—

1. When there is any considerable febrile movement, whether the local symptoms of active inflammation be distinctly marked or not.
2. When the tongue is morbidly clean, beefy red, glassy, fissured, and the corners of the mouth irritable.
3. When the tongue is thickly furred at the base and sides, but red at the tip, with a glazed patch of clean red in the centre of its dorsum.
4. When the tongue is large, flat, pale, moist, and indented by the teeth, in connexion with general asthenia and its accompanying atonic dyspepsia.

If we can first remove these signs, we thereby lessen the opposition to the oil. In the last-mentioned instance particularly, if we can succeed in curing the asthenia, the case is removed from the category; but until then, cod-liver oil seldom agrees.

Diarrhœa contra-indicates cod-liver oil only when the stomach, as marked by the state of the tongue, participates in the irritation. As Dr. Walshe has remarked, where the oil can be taken in cases of habitual diarrhœa, it does not increase this. But there are occasional exceptions.

In each class of cases referred to above, as those in which cod-liver oil, for the most part, does not agree, I have found the neat's-foot oil agree.

Taken in the same way, in the same dose, and with the same precautions as the other, it does not remind the patient of its presence after being swallowed. At first, it commonly acts very gently on the bowels, evincing this rather by softening the evacuations and maintaining their habitual regularity, than by increasing their frequency. In some cases of chronic diarrhœa, when the oil has been given in conjunction with tannin, or with nitric acid and opium, the bowels have become less irritable under its exhibition. In other cases of diarrhœa, the oil has appeared slightly to increase the disturbance. Pains in the chest have improved, the subcrepitant rhonchus at the apex has cleared up, under such circumstances as to give me the impression that the oil had ministered to the result, whilst the general improvement in condition has equalled what we customarily see from the cod-liver oil when it agrees.

The neat's foot oil has also proved of service in simple bronchitis, not connected with tubercle, after the acute stage has passed; in overcoming habitual constipation; in allaying the irritation of hæmorrhoids; and, in general terms, in improving the condition of children who, without manifest ailment, remain too thin, notwithstanding judicious management of their regimen.

In regard to its aperient effect, however, the neat's-foot oil is somewhat uncertain. Usually, as already stated, it at first produces very slight action of the bowels, and then maintains them in a state of regularity. But sometimes it fails to do this, and aperients are required to be superadded. On the other hand, in young children, and in some adults, whose bowels were irritable, a relaxed state has ensued after the oil has been taken alone for a few days. In no instance has it appeared to irritate the mucous membrane, or to produce griping. If there is no diarrhœa, the oil may be expected to promote regularity of the bowels, and nothing more. If there is diarrhœa, or the tendency to it, the oil need not on that account be avoided. The conjoint administration of any suitable astringent will enable the oil to be taken with advantage in the majority of cases.

The cod-liver oil, in a few instances, produces an herpetic eruption about the mouth, very trifling in extent, and a sore state of the tongue. So far I have not observed such effects from the neat's-foot oil. But as they usually occur in summer, I have not yet had a sufficient opportunity of judging. Neither is my experience at present at all sufficient to allow me to draw any comparison between the cod-liver and the neat's-foot oils, in point of ultimate efficacy, where both agree with the patient. I would by no means therefore advise the substitution of the latter, where the former has been habitually taken without inconvenience. There is one exception; when the bowels have been habitually constipated, I have replaced the cod-liver oil by the other with advantage.

As we should anticipate, there are certain of the more acute cases of phthisis in which the neat's-foot oil, (like the cod-liver oil, when it can be taken), proves of no avail in checking the softening of the lung or its attendant emaciation.

The oil of the skate has been supposed with some patients to agree better than the cod-liver oil. I have tried it only twice; in neither case did it agree. The principal claim of neat's-foot oil to attention, therefore, rests upon this, that it will frequently agree with the digestive organs, where the fish oils will not.

There is at present some difficulty in obtaining the genuine neat's-foot oil. From the butchers, it is obtained too much mixed with impurities; from many druggists, mixed with so-called nut-oil; from some, too refined, having had almost all its stearine removed. In this so-styled *very pure* form, I find it disagrees with the stomach. In this, as in the cod-liver oil, and, probably, all other animal oils, a large proportion of stearine promotes the digestibility of the oil. The suitable kind of neat's-foot oil is that which is merely freed from foreign particles, yellowish brown in colour, and opaque and thick with stearine, like honey not over clear.¹

I am indebted to Mr. Walker, formerly of Bloomsbury Square, for suggesting the use of neat's-foot oil, in a case where the cod-liver oil could not be made to agree with the patient. It is, however, by no means an entirely new remedy. I learn from a lady, who is said to have had all the symptoms of consumption thirty years ago, that one Samuel Braunston, of Shuckborough, Warwickshire, was noted for professing to cure all sorts of diseases with neat's-foot oil. He wished to administer his remedy to my informant, but she declined.

To ensure a fair trial, I would suggest that care should be taken that the oil is genuine, but not what the druggists call "exceedingly pure"; that the dose to begin with be small—a teaspoonful twice a day—and increased by degrees to any quantity that may be desirable, and always taken when there is food in the stomach.

Torquay, April 15, 1852.

REMARKS ON DR. MARSHALL HALL'S THEORY OF THE RELATION OF LARYNGISMUS TO EPILEPSY;

AND ON ITS TREATMENT BY NITRATE OF SILVER
APPLIED IN SOLUTION TO THE GLOTTIS.

By EBEN. WATSON, A.M., M.D., Fellow of the Faculty of Physicians and Surgeons of Glasgow; and Professor of the Institutes of Medicine in Anderson's University.

"122. Observation teaches us that laryngismus, more or less severe, intervenes as the essential cause of all that is *convulsive* and most formidable in epilepsy.

"251. The effects of laryngismus are superseded by tracheotomy."

CROONIAN LECTURES FOR 1852.

ANY suggestion on such an important subject as the theory and treatment of epilepsy, especially when emanating from one, who, like Dr. Marshall Hall, has long devoted much attention to that class of disease, is well worthy the careful consideration of every practical physician. Nor can any one fail to see that, if Dr. Hall's statements be correct, a most important revolution must take place in our treatment of the disease in question, and a much more hopeful prospect will be opened up to its unhappy victims.

¹ In point of economy, neat's-foot oil is rather less expensive than cod-liver oil. The wholesale manufacturers charge it 1s. a pint; the wholesale druggists, 1s. 4d.; the Torquay druggists, 2s.; the London druggists, (at least some of them), 6s., under the name of *oleum bubuli*.