pression, flagging of the heart's action, numbness and cramp, dyspnoea, sudden deprivation of life, and other such nervous symptoms, are the only ones present in many cases of this disease. Therefore I argue, that as in English cholera we have the nervous symptoms following the visceral derangement; so in Asiatic cholera we have the nervous symptoms preceding the visceral. As we look to the viscera, and apply our treatment, palliative and curative, to them in English cholera, so in Asiatic cholera we look, or ought to do, to the nervous centres, and apply our treatment, palliative and curative, to them. We find in this latter disease, spinal symptoms; direct attention there, and indications of disease show themselves. I never yet met with a case where spinal tenderness was not present. In Asiatic cholera there seems to be a paralysis of the functions of nearly all the important organs in the body; respiration is interfered with; secretion and the serous effusion into the bowels and stomach may depend upon paralysis of the extreme vessels. Such are my views, and I found my treatment upon them. I could quote instance after instance of the success attending irritation over the spine, but will content myself with casually recording two instances.

J. H—, a lad fourteen years of age, had been prostrate, and cramped, and cold, and blue, with intense thirst and forcible serous evacuations, both from mouth and rectum, for some hours before I saw him. My impressions were unfavourable—so much so, that I almost left him in despair. However, I applied a blister four inches wide along the whole spinal region, and strapped it on with adhesive plaster, and otherwise secured it with bandages; and gave him a drinkable solution of nitro-muriatic acid for the thirst; and ordered frequent doses of beef-tea, made after the plan recommended by Liebig, together with a dose of the following mixture after each liquid stool:—Decoction of the bark of pomegranate fruit, seven ounces; tincture of catechu and kino, of each three drachms; nitro-muriatic acid, forty minims; tincture of opium, one drachm. Mix. He was now left, enveloped in blankets, with strict injunctions to carry out the plan of treatment. The blister began to affect him in four hours, and all the violent symptoms subsided. He had consecutive fever, but ultimately recovered under a continuation of the above treatment.

B. C—, aged about twenty-eight years, and a labourer by trade, whose parents had heard of the repeated efficacy of blistering the spine, was seized with cholera. After being ill for some hours, they sent for me. I found him pulseless and blue, with the peculiar voice and repeated evacuations, both by mouth and anus, intense thirst, &c. The parents told me they had just applied a blister along the spine, as they knew my treatment; so I had nothing to do but to order the nitro-muriatic solution for drink, and the beef-tea and pomegranate mixture, and then leave. I scarcely expected a recovery, yet he did recover. The consecutive fever was long and tedious; but under a continuation of the above treatment, he, as I said before, perfectly recovered.

The decoction of pomegranate bark is much used in the Brazils for diarrhoea and dysentery; and I learn from my brother, at Rio de Janeiro, that it is very effectual. The nitro-muriatic solution is very grateful to the patients; it succeeds in checking the thirst, and removes the clamminess from the mouth, as well as clears from the tongue that creamy substance with which it is often covered. There seems a desire for acids, and this one answers admirably; so does churn milk, after it has become somewhat sour.

There has been some talk of the alkaline reaction of the excretions. I have found them alkaline in many instances; yet I am not prepared to say that this is always the case, not having sufficient data whence to draw a satisfactory conclusion. In mentioning the propriety of giving acids, to check this alkaline predominance, I was met with the answer—No; give alkalies to keep up the supply, they are all leaving the body; it is not that there is an excess of alkalies in the body, but an excess of loss. In the present state of our knowledge of this matter it is difficult to answer, yet experience teaches me the contrary, and I find acids most useful. I have found alkalies often increase the sickness. Since 1844, the first year of the potato disease, though this disease was not generally recognised till 1845, in my practice I have found the urine of most of my patients loaded with urates, known by disappearing when the urine is warmed, and on the addition of nitric acid, also by appearances under the microscope. A solution of nitro-muriatic acid taken three times a day soon causes this sediment to disappear from the urine. I am tenacious concerning the treatment of cholera by counter-irritation over the spine, for I have found it effective. When the case is urgent, my plan is to rub the whole region of the

spine with a solution of croton oil in turpentine—one drachm to the ounce—for twenty minutes, and then apply a hot and moist bran poultice, contained in a bag, so as to be applied with more convenience. The bag containing the bran must be large enough to cover the whole back. This treatment soon shows its good effects; the benefit is astonishing. I have seen all the symptoms cease, or become so materially diminished under its use, as to relieve from anxiety or fear as to the result. In cases of relapse the treatment requires a repetition. As soon as the effect of the blistering is removed, and the skin restored, I examine the spine again, and if tenderness is present I blister the part again and again till all mischief is removed. I do think, that in examination of a patient in many diseases, the spine ought to be looked to with as great minuteness as the pulse. Many cases of dyspepsia, neuralgia, &c., would then meet with ready detection and cure. Lastly, it may be mentioned, that the treatment of cholera should be compressed into the shortest possible space of time, for as the treatment of other and less rapid diseases may be spread over days, so the treatment of one awfully rapid should not extend over as many half-hours. Counter-irritation over the spine fulfils this indication.

Treatment of Cholera on the Plan of Dr. Ayre.

By GEORGE BURTON PAYNE, M.D., Warwick-square.

WHILST the pathology of cholera continues so disputed a point; whilst the disease is daily spreading, and adding to the number of its victims, to the opprobrium of the profession; would it not be more serviceable for medical men simply to record the success of any given mode of treatment, than to speculate upon the occult nature of the disease, for the purpose of establishing a supposed "rational" treatment?

I have myself much pleasure in bearing testimony to the success of the plan proposed by Dr. Ayre, of Hull, which I have steadily pursued, (occasionally modified,) and have lost but one patient (a boy) throughout the whole epidemic, although I have had under my care very many cases, in all stages of the complaint. But one remarkable recovery induces me to send you a brief account of the case, which, if you think worthy a place in your practical journal, is very much at your service.

Mrs. B—. Aug. 23. Came over from Lambeth to Westminster, to see some friends, when she was suddenly seized with vertigo, inability to stand, followed by vomiting and purging, and severe abdominal pain. She immediately took a mixture composed of spirit of turpentine, and the tinctures of capsicum and opium, (dispensed to some receipt,) which had aggravated the symptoms, and I found her, about eight o'clock in the evening, vomiting incessantly the rice-water ejection, with violent cramps in the feet and legs, constant involuntary purging, &c. Ordered sinapisms over the whole abdomen, hot bottles to feet, &c, and to take chloride of mercury, two grains every five minutes, followed by tincture of opium, five minims; compound spirit of ammonia, six minims; water, one drachm.—At nine o'clock, sickness, purging, and pains, much relieved; a genial heat and gentle perspiration breaking out over the entire surface of the body. To continue chloride of mercury, one grain every half-hour, alone.—At three A.M., was called up, and found the woman cold, livid, pulseless at the wrist, the legs completely flexed upon the body. Had so far improved, up to twelve o'clock, as to be able to sit up in bed, and had then been persuaded to take a glass of brandy. The sickness and pains almost immediately returned, and continued with increasing violence until the time I was called up. Although believing the case to be hopeless,—so great was the prostration,—I gave her ether, one drachm; tincture of opium, ten minims, (one dose;) with chloride of mercury, two grains every five minutes, placed upon the tongue without anything else. This was done punctually for two hours, and at seven o'clock I had the satisfaction of finding my patient sleeping, and in profuse perspiration; in a word, reaction was completely established. She took a grain and a half of calomel every two hours throughout the day, and with attention to diet alone, recovered, without any ill effects from the quantity of chloride of mercury taken.

Treatment of Cholera by Abstraction of Blood.

By GEORGE OLIVER, Esq., Surgeon, Newton-on-Trent.

In the year 1832, I first met with cholera, (although ordinary bowel complaints had been frequent.) During the autumn of that year, three cases of cholera fell under my care, the whole of which terminated fatally. Since that time, I have had eleven cases of true spasmodic or Asiatic cholera, the symp-

toms being, sickness; purging of rice-water stools; cramps most violent; coldness, with the blue skin; and no urine passed. The whole of these eleven patients recovered under the same plan of treatment. When I am convinced the case is one of cholera, I bleed; if in the early stage, I take as much as the patient can bear; if in the stage of collapse, there is no fear of getting too much, as I have only been able, in some cases, to obtain from half an ounce to one ounce; but even this small quantity has been of use. I have opened a vein, and taken what blood I could get, even when no pulse could be felt, and in a very short time the circulation has got up. The blood taken in this stage does not coagulate. After the bleeding, I give a bolus, with fifteen grains of calomel and five grains of opium, and have the abdomen covered with a coarse cloth, three or four double, well wetted with equal parts of spirits of turpentine, and the strong solution of ammonia, (liq. ammon. fort.) Half an hour after the bolus, I begin with a small teaspoonful of sedative solution of opium, (Battley's,) in one ounce of which one drachm of musk has been well rubbed, and given all together, without straining. I repeat this dose every half-hour, not having it mixed with any liquid, but give it out of the teaspoon. I do not allow any drink to be given to the patient, except pure brandy, by teaspoonfuls, and as often as it can be got down. This I find to be very distressing to the poor creatures, as they complain so dreadfully of thirst, and would drink quarts, if allowed to do so; but I find the sickness increased thereby. If relief is not obtained in two hours, I repeat the bleeding, but I have only had occasion to do so in three cases out of the eleven. This has been my treatment, and, as I before stated, has succeeded in every instance. In the after management I am of course guided by circumstances. My chief dependence is in the bleeding, which, even in the state of collapse, when only a small quantity will flow, and that by drops, the relief obtained has been very evident. I feel much diffidence in bringing my practice before the profession; but, as a reader of *THE LANCET* and a practitioner for twenty years and upwards, I trust that I may publish this very brief report without rendering myself obnoxious to a charge of presumption.

Reviews.

The Three Kinds of Cod-liver Oil, with Reference to their Chemical and Therapeutical Properties. By L. J. DE JONGH, M.D., of the Hague. Translated, with an Appendix and Cases, by EDWARD CAREY, M.D. 1849. London: Taylor, Walton, & Maberly. 8vo, pp. 176.

COD-LIVER oil and its properties even now attract much attention, notwithstanding the all-engrossing subject which is presented everywhere to the consideration of the profession, to the anxiety and alarm of the public. We cannot, therefore, omit saying a few words about a matter of so much interest. Dr. De Jongh, a Dutch physician, feeling desirous of ascertaining the modes in which the different kinds of oil were prepared, and whether the differences in their physical characters extended also to their chemical and therapeutical qualities, availed himself of some favourable opportunities within his reach of pursuing these inquiries, and the result is now before us. Dr. De Jongh's original publication, which is in Latin, has been translated into German, and to this translation several very useful additions appear to have been made. Dr. Carey's version, with not less useful further additions, is from the German, so, in fact, we have here the result of the combined observations of three physicians. Dr. De Jongh states, that in commerce there are found three kinds of cod-liver oil. A pale oil, a light-brown oil, and a dark-brown oil. All these should be transparent, and have a peculiar fishy odour. In addition, the smell of the dark-brown oil is empyreumatic and disagreeable, the taste bitter, and irritating to the fauces; the light-brown oil is less bitter and less irritating; the pale oil does not possess these properties at all. The author's inquiries show that these oils are prepared indiscriminately from several species of the cod-fish tribe, chiefly from the Dorse, in the region from whence his specimens were procured. There is reason to believe that in many cases, not merely the livers of other fish, but even the fish themselves, and not unfrequently some mammalia, in-

cluding seals and porpoises, contribute to the supply. It appears, further, that the livers are thrown into casks, in which they are allowed to remain some time. The separation of the pale oil commences spontaneously; it is removed, and then the livers are subjected to heat in iron pans. The dark-brown oil is the result. The light-brown is either produced in the first stages of the heating process, or by a combination of the other two. Into the chemical composition of these varieties of oil, the author has pursued a most elaborate inquiry both qualitatively and quantitatively. He finds cod-liver oil, *per se*, to be composed of oleic acid, with a peculiar substance which he calls gaduine, margaric acid, glycerine, butyric and acetic acids, biliary acids, bilifulrein, some peculiar substances, also iodine, chlorine, bromine, phosphorus, and some earthy salts. All three varieties of oil contain these elements, but in different proportions. Strange to say, "the lighter kinds are richer in inorganic substance (as well as in iodine) than the brown kind; whilst, on the contrary, the latter is richer in the component parts of the bile; in butyric and acetic acids." The results of the chemical investigations are succeeded by an historical statement of the various therapeutical properties which have been assigned to this remedy, and a statement of the author's experience of the relative merits of the three kinds is given. We learn from all this that cod-liver oil has long been known, both here and on the Continent, as a very useful remedy in chronic rheumatism and gout, rickets, scrofula, &c.; and that it has been applied with varying success in a great many other diseases in which the process of nutrition appeared to be impeded or deranged in any of its stages. For information on these points, we must refer the reader to the work itself, or some similar source. Dr. De Jongh then gives the histories of half a dozen cases treated by each of the three kinds of oil respectively, and concludes, that though cures were effected by all, still that the operation of the brown oil was considerably the quickest.

Thus far we have endeavoured to give an outline of the contents of this work, which, so far as the opportunities of the author extended, exhibit as complete and as ably conducted an inquiry as could be desired—an inquiry which will be examined by all who are interested in this subject. There still, however, remains much to be done. The cod-liver oil now used in this country differs in a great measure from either of the kinds here described. It is prepared from fresh livers by heat. Thus whilst it retains the less unpleasant properties of the pale oil described by the author; it also, perhaps, acquires, by the application of heat, those more powerful therapeutical qualities which the brown oil is stated to possess. We require, therefore, a chemical examination of the English pale cod-liver oil. We require more—we need a careful investigation of its capabilities in the cure of different diseases, and of the mode of its action. Our own experience, and it has been extended, leaves on the mind the impression that no other medicinal or dietetic agent possesses, to the same degree, the powers of correcting the effects of depraved nutrition, whether they are manifested in the glands, the lungs, the bones, the mucous membrane, or the skin. As a most useful addition to our knowledge on this interesting subject, we recommend the study of Dr. De Jongh's treatise, extended as it is, in its present form, by its able commentators.

The Modern Housewife, or Ménagère; comprising nearly One Thousand Receipts for the Economic and Judicious Preparation of every Meal of the Day, with those of the Nursery and Sick Room, &c. Illustrated with Engravings. By ALEXIS SOYER, (Reform Club.) London: Simpkin, Marshall, & Co. 1849. 8vo, pp. 430.

THE well-known M. Soyer has added another leaf to his laurels. He has produced a book characterized by as much piquancy as his artistic productions of another kind, yet one which is equally well calculated for use by families of moderate