ing used a wooden plug "instead of a cork, as customary in his country, to cure diarrhoea." In one, two, or three hours this enema may be removed, never omitting to use the cork, and augmenting or diminishing the quantity of pulvis opii as needful. No inconvenience ever arises from using this plug. By this plan the purging and vomiting will be arrested. The patient should use lemonade, or orange juice, in barley-water or toast-water, or a little very weak chicken-soup; but no other food, and no medicines by the mouth.

3RD STAGE.—If called in at this stage, we find that the patient has now vomited and purged, till, in a direct manner, the serum of the blood is almost all expended. I order what we call at Sunderland mutton tea, viz., a strong infusion of lean good mutton (the water for the infusion as hot as possible) avoiding salt or spices.

By means of a syringe or bladder and pipe, at a proper temperature, this infusion is thrown in a careful manner into the bowels, and there retained by a cork as above described. From this the patient will feel instant relief, and the symptoms will be immediately alleviated. Should the desire to get quit of the injection distress the patient, let it pass, and in half an hour renew it; by this means keeping a pint of the infusion always in the bowels. In some cases it may perhaps be needful (though it was never so with me) to add to the enema six or eight grains of pulv. opii.

In every instance I have observed that when the enema was returned it was tinted with fresh bile, and of this the quantity and quality were generally augmented and improved till fæces made their appearance. About this time the kidneys secrete urine, and the bladder readily expels it, at first in small quantities, and soon afterwards in abundance, in which there is to be found the usual salts without albumen or fibrin. External heat, pure air, frictions, whether there be cramps or not, should be diligently employed, attending of course to the symptoms, and obviating the continued disposition to collapse, so that the circulation on the surface may be kept up. The patient should be kept comfortable in every respect, and his mind made easy, and even, if possible, cheerful.

The attendants should never leave him for a moment, for should he sit up, he might die from the weakened state of the heart and arteries, or from the thick and effete blood, or from both.

The medical attendant should never lose sight of his patient, as at this stage and the following everything depends on sound knowledge and prompt measures.

Should the patient now desire nourishment, he may have a little tapioca or sago,

much diluted, to which a small portion of genuine brandy or sherry may be added.

I have always found that, at this time, all the peculiar symptoms of cholera leave the patient. Of course cupping, leeching, and blistering, may be had recourse to, so as to remove topical affections or particular determinations; and, in my opinion, all medicines by the mouth are worse than useless up to this time of this stage. Should the liver not readily secrete bile, nor the kidneys urine, from ten to twenty grains of blue pill may be given every four or six hours till these secretions commence.

In general I have found this to answer, but from two to twenty grains of calomel may be, under certain circumstances, substituted for the blue pill in the same manner, to which a small portion of pulvis opii may be added. Effervescing draughts have often been most useful in my practice.

4TH STAGE.—At this, which is the sequela or consecutive stage, or fever, of the disease, we find many symptoms in common with the last stage of typhus fever, which from my analysis of the blood, in my treatise on typhus fever, I find to correspond in many points.

At this stage a similar plan to that recommended in the above work should be had recourse to. The greatest care is needful to avoid inflammatory symptoms, and to remove them should they occur, never for a moment forgetting, that in this sequela, the blood being surcharged with free carbon, which, from the first, induces the greatest debility, as well as vomiting and purging, patients often die of debility alone.

In the rapid type, as the disease runs through all these stages in a few hours, all the energies and talents of the medical attendant are imperiously called for; indeed the medical man should not leave his patient for ten minutes, for should the patient fly to cold water, or get out of bed, or even sit up in bed, his life would be compromised.

W. REID CLANNY, M. D.

ANASARCA.

ALLEGED DEFECTS IN THE CYCLOPÆDIA OF MEDICINE.

To the Editor of THE LANCET.

SIR,—On taking up the *Cyclopædia of Practical Medicine* recently published, I perused with some attention the article on anasarca, which I perceive is written by Dr. Darwall of Birmingham, and was surprised that some omissions had been made, which seemed to me of much importance. Whether this has arisen from want of room in which to discuss every part of his subject or not, I am unable to tell, but from

the talent displayed in several parts of the paper, it cannot be supposed that the author is ignorant of the many important facts connected with the disease, which he has neglected to mention.

This gentleman has alluded to the frequent production of anasarca swellings from disease of the heart, and has brought forward cases illustrative of this; but he has omitted to take notice, amongst other causes of dropsical effusion, of organic diseases of the liver and kidneys, or of the symptoms by which these may be detected. And it appears to me rather singular that the author should have only cursorily spoken of the state of the urine in anasarca, and only in reference to its supposed use in the diagnosis of inflammatory and asthenic dropsy, at first spoken of by Dr. Blackall, when it is perfectly well known, and must of course be fully so to the author, that in anasarca, when the kidneys are diseased, the affection may always be detected during life by the altered condition of the urine. Indeed, from the positive assertions of Dr. Bright, in the first volume of his *Medical Reports*; of Dr. Christison, who published some years ago an able paper in the *Edinburgh Medical and Surgical Journal*, containing the analysis of the urine and blood in several cases, and of Dr. Gregory of this place, who has paid very great attention to this subject, and has published his opinions in the two last volumes of the above periodical, accompanied by a profusion of cases, it is established beyond doubt, that in cases of dropsy, when the urine is of a pale or brown colour, of low specific gravity, when it coagulates by heat, by different acids, corrosive muriate of mercury, and other tests of albumen during life, a *post-mortem* examination invariably displays a peculiar disorganisation of the kidneys; for in no one instance in which the urine has been found to possess these qualities, have these organs been found in a healthy condition after death.

The most decided test of the albuminous impregnation of the urine is, heat, and this may be further confirmed by the addition of different reagents. Corrosive muriate of mercury, though the most delicate test of albumen, is generally decomposed in healthy urine, and is precipitated of a slightly darker colour than the pure white precipitate from diseased urine, and is evidently a different substance, although the contrary is believed to be the case by Dr. Gregory,* from a difference in their properties, and their agreeing in no one respect in their solubility in a variety of chemical agents.

The occurrence of urea in the blood of anasarca patients from different causes,

and who have at the same time organic disease of the kidneys, is not in the slightest degree touched upon, nor of course are there any conclusions drawn from this remarkable circumstance. I have in my possession at present some of the nitrate of urea, formed from the blood of a girl who died anasarca, which has all the characteristic properties of that from healthy urine.

Having made these desultory remarks, I beg to express a hope, that in the next edition of the *Cyclopædia*, Dr. Darwall will be allowed more space for the full exposition of his subject, or that the writers on ascites and dropsy which have yet to appear, will profit by the omissions which have been made in his paper. I have the honour to be, Sir,

Your obedient servant,

W. P. BAIN.

Edinburgh, 19th Jan., 1832.

EXPERIMENTS

TENDING TO PROVE THAT

MURIATE OF SODA

IS NECESSARY IN THE CHANGE WHICH
TAKES PLACE WHEN

VENOUS BLOOD BECOMES CON-
VERTED INTO ARTERIAL.

By ISAAC LYON, Esq., M.R.C.S.L., Hull.

THE following detail of experiments (made in May and June 1830), in my opinion, tends to prove that for the venous blood in man to become converted into arterial, it is not only necessary that oxygen should be present, but that the serum should contain muriate of soda.

Exp. 1.—I took some coagulum and exposed the lower surface of it, which was then of a dark-purple, to the air, leaving it in its own serum. In the course of twelve hours the surface which had been of a dark-purple, was converted to a fine scarlet.

Exp. 2.—I took some coagulum, and reversed it as in the former experiment; but instead of leaving it in its own serum, I poured it off, and substituted in its place the common spring-water of this town. After the lapse of thirty hours no change had taken place. I now poured off the water and returned the serum, in fifteen hours it became changed to a fine scarlet, so that from this experiment we may fairly conclude, that without the serum the change of colour cannot take place, and therefore that the serum is necessary for this change. These experiments I have frequently repeated, and invariably with the same re-

* Edinb. Med. and Surg. Journal, No. 110.