Still, it is important to remember that when it does occur it is more serious after the posterior than after the anterior operation.

In my last letter I said: "If the loop of a gastro-jejunosomy can become waterlogged apart from mechanical obstruction, how is it that the loops of which the small intestine is composed do not become waterlogged?" Mr. Moynihan objects to this comparison and suggests as a more suitable analogy the conditions which exist when a loop of intestine otherwise healthy is fixed by an adhesion or by a diverticulum. I accept this analogy; it supports my argument. Surely when waterlogging occurs in such cases it is secondary to mechanical obstruction. As Mr. Moynihan says, "kinking may occur." Precisely, that is my contention; the waterlogging in these cases and after a gastro-jejunosomy is secondary to the mechanical obstruction produced by a kink. There is, I submit, no evidence that fixation of a piece of intestine produces waterlogging apart from mechanical obstruction. Anchoring the sigmoid for volvulus does not lead to waterlogging and at operations and at post-mortem examinations it is not rare to find the intestines matted together and adherent to a degree which would lead us to suppose that obstruction must have resulted, and yet nothing of the kind has occurred.

Mr. Moynihan now states that he does not consider waterlogging to be the primary factor, but in his former letter he said: "The proximal jejunal limb becomes waterlogged and obstructs, it may be, both afferent and efferent openings." If this statement does not imply a belief that the waterlogging is the primary condition I am at a loss to know what it does mean. Mr. Moynihan next says: "That the obstruction is due to the loop is shown by the fact that in the absence of a loop it does not occur although the method of anastomosis remains the same." In view of the cases recorded by Dr. Mayo and Mr. Ward this statement must be regarded not as a fact but as an untenable hypothesis. Mr. Moynihan asks, "How is it that a loop becomes waterlogged which is free to empty itself through an unobstructed afferent opening, and that when vent is given to a waterlogged loop by entero-anastomosis the obstructive vomiting in almost every case is at once relieved although no change is made at either afferent or efferent opening?" I think that the explanation is quite simple. Although the afferent opening is patent the efferent opening is obstructed, consequently the gastric contents cannot escape except by the act of vomiting. The intra-gastric pressure is thus raised and this rise of pressure interferes with the ready entrance into the stomach of the contents of the loop, therefore the loop becomes waterlogged. After entero-anastomosis is performed the loop is drained by the new opening and the stomach contents can readily escape through the *afferent* opening into the proximal limb and thence through the entero-anastomotic opening into the efferent jejunal limb.

May I correct one misapprehension with regard to my own work. In my lectures I recorded one case (not two) in which regurgitant vomiting was due to gastro-jejunosomy. We all of us must learn in the school of experience, and I believe that in this case regurgitant vomiting was due to neglect of a detail in technique of which at that time I did not realise the importance. I did not, nor do I, maintain that the no-loop method is difficult, although I have no doubt that in Mr. Moynihan's practised hands it appears easier than it really is. My point is this. In performing a posterior no-loop operation it is necessary to draw the stomach out of the wound so as to expose its posterior surface and also to tear a hole in the mesocolon. In the anterior operation there is less manipulation as the anastomosis is performed with the stomach practically undisturbed and no hole is made in the mesocolon. Therefore, I say, the anterior operation is simpler and less complicated. My attitude towards the posterior operation is one of "philosophic doubt," although I have a settled conviction that the anterior operation as now performed gives excellent results. As yet, however, we are in the early days of successful gastric surgery and our present views and present practice may subsequently require considerable modification. I do think, therefore, that we should be very careful not to draw premature conclusions as to the superiority of a particular method. In my judgment the no-loop method has not been on trial for a sufficient length of time to justify the conclusion that it is preferable to the anterior.

Finally, I must thank Mr. Moynihan for his kind and appreciative words. I need hardly say that although in this friendly controversy I have on some points differed from

him, such difference does not in any degree diminish my regard for his work and my high appreciation of the part he has played in furthering the progress of gastric surgery.

I am, Sirs, yours faithfully,

HERBERT J. PATERSON.

Upper Wimpole-street, W., May 23rd, 1906.

THE TREATMENT OF INFANTILE DIARRHŒA.

To the Editors of THE LANCET.

SIRS,—I have found the following to be the most satisfactory method of treatment for the summer diarrhoeas of infants. Firstly, administer a purge consisting of castor-oil, rhubarb, calomel, or saline. In my experience the last two are the most efficacious, one-tenth of a grain of calomel being administered every half hour for at least four doses and sometimes until the motions assume a bilious hue. The saline is given in this manner: dissolve two teaspoonfuls of sulphate of magnesium in a teacupful of warm water, flavour with a little lemon, and then give two teaspoonfuls of this mixture every 20 minutes until the bowels are well cleared. Where the motion is of a dysenteric character the colon must be flushed out with some weak antiseptic solution.

So far as medicinal medication is concerned I have had the most brilliant results with copper arsenite given in doses of $\frac{1}{1000}$ grain to $\frac{1}{500}$ grain every ten minutes for from four to six doses and then every two hours. A most useful method for removing the horrid fœtor of these cases is to give the sulphocarbolates of zinc, soda, and lime, of each $\frac{1}{4}$ grain; if given in combination with bismuth the bismuth will no longer blacken the motions, but the sulphocarbolates must be of the purest description or they will produce vomiting and other undesired effects. I find the subgallate or salicylate of bismuth acts better than the subcarbonate or subnitrate.

The other drugs which I most frequently use are cotoine, emetine, and hydrastine. In extreme algid cases I find the most useful aids in a good hot bath and a hypodermic injection of atropine sulphate $\frac{1}{500}$ grain to $\frac{1}{250}$ grain, or glonoin $\frac{1}{100}$ grain. Atropine sulphate has been recommended for the extreme thirst in doses of $\frac{1}{5000}$ grain to $\frac{1}{1500}$ grain every half-hour. Opium I never use but give codeine sulphate $\frac{1}{2}$ grain to $\frac{1}{2}$ grain or Gregory's salt $\frac{1}{7}$ grain to effect. I have always thought that the better way of judging the dosage of narcotics for children was not so much the age as the weight and *status præsens* of the individual case. The best pain relievers I have found to be hyoscyamine $\frac{1}{1000}$ grain, and strychnine arsenate $\frac{1}{154}$ grain, every ten minutes to effect. The diet should be albumin water, oatmeal water, or plain ordinary water, flavoured with lemon; if possible all milk should be stopped for at least 48 hours. The beef-teas and extracts are of use as the easiest way of making broths without any grease. The high fever of these cases is best treated by small doses of aconitine or good hot baths.—I am, Sirs, yours faithfully,

WILLIAM AYRES, B.A., M.D. Dub.

Brierley Hill, Staffs., May 28th, 1906.

OFFICIAL STANDARDS OF PURITY FOR JAMS.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the annotation upon the above subject in THE LANCET of March 3rd, p. 613, and the letter by Mr. Morris Streimer commenting on the same in the following week's issue. My attention is particularly called to the statement of Mr. Streimer that "In America glucose is an everyday article on the breakfast table and tea-table." This is very far from being a statement of the actual conditions attending the consumption of glucose in this country. It is true that by the term "glucose" in America is meant the thick, white syrupy liquor produced by the hydrolysis of starch with an acid, usually hydrochloric or sulphuric, and consisting essentially of a mixture of dextrin and dextrose and a small quantity of maltose. That group of bodies known as dextrin is one of the principal constituents of glucose. This substance is used in this country largely in the manufacture of table syrups and imitations of honey. In most of the States it cannot be sold without a notification upon the label of its presence. This rule also applies to all importations of foods from foreign countries made wholly or in part of glucose.

Glucose table syrups are not by any means the only syrups used upon our breakfast-tables. We have in this country immense quantities of syrups made directly from the evaporated juice of the sugar cane and sorghum and these are in much more common use than glucose table syrups, especially in the country districts. We have also large quantities of table syrups made from the evaporated juice of the maple tree. I am not quite certain that glucose made by the action of an acid at a high temperature and under pressure on starch is as good a food as the hydrolytic products of starch made under the influence of the enzymes of the digestive tract. I think it is a general observation that natural products are more wholesome than those of an artificial character which resemble them chemically. For this reason I am of the opinion that sugars produced by the natural diastasic action of the digestive fluids on starch are perhaps more wholesome and more digestible than those produced from the same substances by hydrolysis with acids. I am not, however, ready to say that glucose, even when made with acids, is not a wholesome food product. This is a matter which perhaps is to be determined in the future.

I especially wish to approve of the editorial note respecting the adulterations with glucose. I am of the opinion that a substance which in itself might not be unwholesome may become so if used for adulteration. For instance, starch cannot be regarded as an unwholesome substance, and yet if used as an adulterant so as to unbalance the ration and make it more starchy than it should be otherwise it may produce serious results by deranging the digestion. For the same reason glucose, which of itself may not be regarded as an unwholesome substance but consisting, as it does, largely of dextrin and dextrose and containing very little maltose, may become so if added to a product which consists naturally chiefly of maltose.

The use of glucose in jams, jellies, and marmalades is not necessary to prevent crystallisation of cane sugar, because if the fruits be used in sufficient quantities and the heating be sufficiently long continued there will be produced enough invert sugar to prevent crystallisation. My own observation of the use of glucose for adulteration purposes in this country leads me to believe that its particular value lies in cheapening the products and not in making them more presentable, more palatable, or more wholesome. The substitution of apple juice derived, as it is, chiefly from the cores and skins, which are the residue of the evaporated apple industry, can never make a product as wholesome nor as palatable as a natural one. It is certainly cheaper and if not unwholesome might be offered under some proper name for consumption by those whose small incomes do not permit them to purchase the better and higher-priced articles. I therefore approve most cordially of the statements contained in your editorial comment on Mr. Streimer's letter.

I am, Sirs, yours faithfully,

H. W. WILEY, M.D.,

Chief of the Bureau of Chemistry of the United States Department of Agriculture.

Washington, D.C., May 9th, 1906

THE EFFERVESCING BEVERAGE.

To the Editors of THE LANCET.

SIRS,—The very interesting annotation which appeared on this subject in THE LANCET of May 26th, p. 1482, had the uncommon demerit of being too judicial in tone. For the counts in the indictment against the use of aerated drinks are more numerous and more grave than a casual reader of the article would be led to believe. Setting aside the undoubted responsibility of mineral waters for the deplorable increase in the consumption of whisky upon which you rightly lay stress, the mere ingestion of these waters, as such, is an undesirable practice from many points of view.

One of the most prominent evils of the day is over-alimentation, and there can be no doubt that the local stimulating effect upon the gastric mucosa produced by the presence of CO₂ fosters this evil in a very definite degree. Over-alimentation creates a demand for an increased supply of oxygen, the necessity for which is still further augmented by the absorption of the CO₂. The practice therefore entails a considerable and wholly unnecessary strain upon the cardio-vascular apparatus, with results which are none the less grave because they are not immediately manifest.

The people who are, as a rule, most addicted to the use or abuse of these waters are large eaters, and large eaters have almost invariably some degree of gastric dilatation. The

effect of introducing CO₂ or indeed any other gas into the stomachs of such people is necessarily that of still further increasing the dilatation and by ballooning the organ of displacing the heart and thus adding materially to the cardio-vascular embarrassment.

Carbon dioxide is not only a poison but it is physiologically an excrementitious gas which the body is at much pains to excrete, and it is difficult indeed to find a single reasonable argument in favour of employing such a substance as an article of daily consumption. If it should be necessary, as in the case of ordinary healthy persons it should not be, to stimulate the gastric mucosa, surely this end can be achieved by some means less objectionable and less conducive to cardio-vascular distress than the ingestion of these waters. I am, Sirs, yours faithfully,

London, W., May 29th, 1906.

LEONARD WILLIAMS.

TESTS OF DOMESTIC GRATES: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—Will you allow me to express the regret of the Coal Smoke Abatement Society that an error occurred in the report of Grate Tests published in THE LANCET of May 19th. Two grates were entered for competition by the Coalbrookdale Company—the “Bostel” patent fireplace, a description of which appears on p. 1414 of THE LANCET, and a second grate of which no description was supplied. Inadvertently the figures given under the description of the “Bostel” grate are those which referred to the second grate. The figures of the “Bostel” grate should be: Coal consumption, 21.73 pounds; temperature, 6.4°; smoke, 1.32, as given under the heading “Coalbrookdale Co.” “C” grate on p. 1415. These figures make no difference in the result of the test, as in all calculations the correct figures were employed.

I am, Sirs, yours faithfully,

LAWRENCE CHUBB, Secretary.

Victoria-street, Westminster, S.W.,

May 24th, 1906.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The University.

THE Ingleby lectures, which have just been delivered, were established for the promotion of obstetric medicine and surgery and in memory of Dr. John Tomlinson Ingleby who settled in Birmingham in 1816 and devoted himself to the interest of the subjects with which his name is now especially associated. The lecturer elected for the present year was Dr. C. E. Purslow, the obstetric officer to the Queen's Hospital, and he chose as his subject the Management of a Case of Labour. Few men have had more experience than Dr. Purslow of the work of which he spoke and in his lectures he gave a clear exposition not only of his own personal experiences but also a summary of the work and opinions of others. The lectures were attended by a large audience and it is to be hoped that they will be published, for they contain many suggestions of value both to practitioners and students.—The Guild of Undergraduates had a garden party at Highbury last week. Mr. Chamberlain's orchid houses were open; the weather, which has been so uncertain of late, was propitious and the meeting was most enjoyable.—Unfortunately the Principal is not well again; an attack of influenza has in part undone the good effects of his holiday in southern Europe and he has had to give up some of his engagements but now that more genial weather has come his recovery will no doubt be rapid.

The late Mr. Thomas Corbett.

Mr. Thomas Corbett, M.R.C.S. Eng., L.S.A., whose death was recently announced and whose charities have been chronicled in your columns, was a governor of the University of Birmingham and his death is much regretted. He took an interest in the general work of the University and more especially in its library, to which he was a generous donor. It appears from his will that he has left a fortune of the gross value of £388,729, of which the net personalty was £48,314. By his will he distributes to charitable institutions £95,000 and of this £24,000