

GHERKINS.

18th Sample.

Purchased at the establishment of—Messrs. Batty and Co., 15 and 16, Finsbury-pavement.  
Rendered green with much *copper*.

19th Sample.

Purchased at the establishment of—Mr. George Snelling, 30, Fenchurch-street.  
Contains *copper*.

20th Sample.

Purchased at the establishment of—Messrs. Neighbour and Son, 127, High Holborn.  
Contains a little *copper*.

INDIA PICKLES.

21st Sample.

Purchased at the establishment of—Mr. Charlton, 198, Piccadilly. Labeled "West India Pickles, imported by E. Lazenby and Son, 6, Edwards-street, Portman-square."  
Highly coloured with much *copper*.

MIXED PICKLES.

22nd Sample.

Purchased at the establishment of—Messrs. Frost and Sons, 22, Charlotte-street, Fitzroy-square.  
Coloured with *copper*.

23rd Sample.

Purchased at the establishment of—Mr. J. T. Burton, corner of Henry-street, Hampstead-road. Labeled "G. Wybrow, Royal Mint-street, London."  
The beans in this sample are rendered green with *copper*.

PRESERVED VEGETABLES.

PEAS.

24th Sample.

Purchased at the establishment of—Messrs. Fortnum and Mason, 182, Piccadilly.  
Coloured with *copper*.

25th Sample.

Purchased at the establishment of—Messrs. T. and H. Morel, 210, Piccadilly. Labeled "Petits Pois Fins. Maison Joret, Blanstier et Fontaine, Paris."  
*Free from copper*.  
Ash of a reddish colour, owing to the presence of much *iron*, derived from the metallic case in which the peas are preserved.

26th Sample.

Purchased at the establishment of—Messrs. Howis and Masson, 216, Piccadilly. Labeled "Thre. Rolland au Mans."  
*Free from copper*.

27th Sample.

Purchased at the establishment of—Mr. A. V. Ferre, 1, Marylebone-street, Regent-street.  
Coloured with *copper*.

28th Sample.

Purchased at the establishment of—Messrs. Crosse and Blackwell, 21, Soho-square.  
*Free from copper*.

HARICOTS VERTS.

29th Sample.

Purchased at the establishment of—Messrs. Fortnum and Mason, 182, Piccadilly.  
Highly coloured with *copper*; ash containing *iron*.

30th Sample.

Purchased at the establishment of—Messrs. Howis and Masson, 116, Piccadilly. Labeled "Rodel et Fils, Bordeaux."  
Deeply coloured with *copper*.

31st Sample.

Purchased at the establishment of—Messrs. T. and H. Morel, 210, Piccadilly. Labeled "Blanstier et Fontaine, Paris."  
*Free from copper*.

32nd Sample.

Purchased at the establishment of—Mr. A. V. Ferre, 1, Marylebone-street, Regent-street.  
Contains much *copper*.  
Ash highly coloured from the presence of both *copper* and *iron*.

MIXED VEGETABLES.

33rd Sample.

Purchased at the establishment of—Mr. A. V. Ferre, 1, Marylebone-street, Regent-street.  
The *peas* and *beans* contained in this sample are highly coloured with *copper*.

From an examination of the preceding analyses it appears—

That of the *seven* samples of *greengages* examined, *four* were coloured with *copper*, while *three* were uncoloured and free from that metal.

That of the *five* samples of *gooseberries* analyzed, *three* contained much *copper*, and in *two* only was it absent.

That the sample of *rhubarb* also contained *copper*.

That of *ten* samples of *Pickles*, including *French beans*, *gherkins*, *mixed pickles*, and *West India pickles*, *copper* was found in *seven*, and but *three* were uncontaminated with that metal.

That of *five* samples of *preserved peas* tested, *two* contained *copper*.

That of *four* samples of *French* or *haricot beans*, *three* were highly coloured with that metal, which was also largely present in a sample of *mixed vegetables*.

Thus of *thirty-three* samples analyzed, *copper* was present, frequently in considerable amount, in no less than *twenty-one* of the samples, or in *nearly two-thirds*.

This result we regard as most disgraceful. The practice of colouring vegetable substances intended to be used as articles of food some years since was fully exposed in a Report of the Analytical Sanitary Commission, and there is no excuse for a persistence in it whatever. The bottled and preserved fruits and vegetables, as already explained, do not come into contact with *copper* at all, and when, therefore, that metal is found in them there is every reason to believe that the addition has not been accidental. Further, in the case of pickles, there is no necessity whatever that they should be prepared in *copper* utensils, as *iron* ones answer the purpose sufficiently well.

True, the pickles thus prepared are less green; but surely the fact of their being of better flavour and much more wholesome ought to be more than enough to counterbalance this trifling disadvantage. The blame in this case rests mainly with certain of the manufacturers and preparers of these articles; if these would resolutely set their faces against the practice it would soon be at an end. It should be known that the addition of *copper* to any vegetable substance used as an article of food is a violation of the recent Act for the Prevention of Adulteration, and exposes the parties to prosecution.

Nearly all the vegetables preserved in metallic cases contained much *iron*, the presence of which is due to the construction of the so-called tins, which consist of sheet-*iron* covered with a thin coating of *tin*, and which in places is frequently defective, thus allowing of the action of the acid juices upon the *iron*.

Two of the samples—one of *peas*, and the other of *beans*—were specially tested for *tin*, but not a trace of that metal was discovered.

## Correspondence.

"Audi alteram partem."

### PROPAGATION OF TYPHOID FEVER.

To the Editor of THE LANCET.

SIR,—In the complimentary notice with which you have honoured my papers on the Propagation of Typhoid Fever in your very able leader of last week, you have referred to them in terms which are likely to convey to all who may not have read them a very erroneous idea as to their object.

From the general tenour of your remarks everyone would conclude that the chief aim of these papers was to prove that the fever in question is propagated only through the medium of tainted drinking water. Nothing can well be wider of the

fact. In the very first of the series (THE LANCET, Dec. 6th, 1856, p. 617) it is expressly laid down that the air is a principal medium for the diffusion of the specific poison which the diseased intestines cast off, and various details are given to show how widely this mode of diffusion operates. Of the numerous fever outbreaks discussed in succeeding papers, there are only two in which there were any facts to indicate that the poison was distributed by the drinking water. I may add that I have in my possession a large body of decisive evidence to show that the cases in which fever is communicated by water are numerically quite insignificant in comparison with those in which it is communicated by poisoned air.

If I have apprehended rightly the drift of your article, your principal objection to the contagion theory is that it is "exclusive." But because a theory happens to be exclusive is no reason whatever that it should be untrue. It is all but universally believed, for instance, that plants and animals were created once for all, and are propagated now only in one way—i. e., by lineal descent. This is a very exclusive theory, but it is nevertheless, I fancy, a perfectly true one. A small minority, indeed, still hold that some plants and animals, although endowed with powers of self-propagation, are constantly springing up anew also. This is a much less exclusive and much more comprehensive theory than the other, but unfortunately there are abundant reasons for concluding that it is not a true one.

In past attempts to interpret the phenomena of nature, cases without number have already come to light, in which the most complex results have been traced to the action of a single principle. To demonstrate this is, in every such case, to find the true theory—a theory which, I may observe, is, by the very conditions, true, *precisely because it is exclusive*.

In the surpassing importance of pure air and pure drinking water as conditions of health, we are, I suppose, all agreed. For my own part, I will not yield to the most ardent sanitarian in my zeal for these great safeguards. But, for the emergency of actual fever, I have specific measures to propose, which come nearer to the root of the evil. By treating the intestinal discharges, and everything imbued with them (including the hands of attendants on the sick), with proper disinfectants, I endeavour to stay the spread of the malady by destroying the very seed from which it springs.

Not theory only, but actual experience,—extending now over nearly twenty years,—has satisfied me of the sovereign efficacy of this mode of prevention. Were it universally practised, with the skill and intelligence which such a proceeding requires, I will venture to say that the cases of typhoid fever in England, which average now about a hundred and fifty thousand annually, with fifteen or twenty thousand deaths, would soon be cut down to a very low figure.

I trust, Sir, that this method, which is so simple, and which recommends itself so strongly to common sense, will have the support of your powerful pen in any future articles which you may write on this subject.

I am, Sir, your obedient servant,

Lansdowne-place, Clifton, Nov. 1861.

WILLIAM BUDD, M.D.

## ALBUMINOUS URINE.

To the Editor of THE LANCET.

SIR,—Your correspondent of the 16th inst. will find in Dr. Golding Bird's work on "Urinary Deposits," p. 320, ed. 3rd, that the fact he mentions in his note relative to the non-precipitation of albumen from the presence of nitric acid in dirty test tubes is no novelty.

Dr. Bird says, "Albumen may be present, and yet escape detection, from using dirty test tubes; a small quantity of an acid or a little solution of potass or soda left in a tube will prevent the precipitation of albumen by heat from urine boiled in such a tube."—I am, Sir, your obedient servant,

King's Lynn, Nov. 1861.

JOHN LOWE, M.D.

## THE MEDICAL ASSISTANTS' BENEVOLENT ASSOCIATION.

To the Editor of THE LANCET.

SIR,—If the gentleman who signs himself "A Surgeon" in your last impression, and who kindly suggested the formation of local committees in order to extend the basis of the above Association, will send his name and address, with any further suggestions he may be pleased to make, to our secretary, J. C. Anderson, Esq., 7, Palsgrave-place, Temple, I have no doubt

that they will meet with every consideration from the Committee of Management. I am sure it only requires the co-operation of a few such men as your correspondent, "A Surgeon," to make this Society universally known and supported by the large body of medical assistants residing in London and the provinces. We shall be glad, therefore, to hear from gentlemen possessing some influence in the large provincial towns who will assist us in our efforts to form local committees.

I remain, Sir, your obedient servant,

Bishopsgate-street Without,  
November, 1861.

ALEXANDER ELLIS,  
Member of the Committee.

## A NEW REMEDY.

To the Editor of THE LANCET.

SIR,—In the *Chemical News* of Sept. 21st, p. 158, there is an extract given from the *American Journal of Pharmacy* in which Herr Emile Heydenreich claims to be the discoverer of a new salt of iron—viz., the phosphate of the sesquioxide, soluble in a solution of citrate of ammonia.

I think it but fair to my friend, Mr. J. Lightfoot, jun., of Accrington-lane, to state, that more than two years ago he prepared in his own laboratory an iron salt identical with this. Finding, like Herr Heydenreich, that in addition to this salt being soluble in a solution of citrate of ammonia, it was also soluble in hydrochloric and nitric acid, Mr. Lightfoot thought it might be of considerable service to the medical profession. It was accordingly tried, but did not realize all the expectations of its talented discoverer. Mr. Lightfoot again instituted experiments, and at last succeeded in making a magnetic phosphate of iron—a salt somewhat similar in its composition to the phosphate of the sesquioxide, but, unlike it, much more soluble in either hydrochloric or nitric acid. Pursuing his experiments still further, Mr. Lightfoot found that the acid which most freely and readily dissolved the salt was the citric. The proportion of magnetic phosphate of iron which this acid in solution will take up is more than double that which is taken up by the solution of citrate of ammonia proposed by Herr Heydenreich; the proportion of the former being, if I remember rightly, forty-eight per cent., while that of the latter is only twenty-three per cent. You have thus a more active preparation, and one in which you can place greater confidence.

I may add that this citric-acid solution of the magnetic phosphate of iron has been extensively prescribed in Lancashire. Its action in albuminuria, diabetes, and various forms of heart-disease is most striking; while, as a tonic, it can scarcely be surpassed. It does not precipitate with sy. aurantii like most of the iron salts; thus forming one of the most agreeable chalybeates imaginable. In proof of its physiological effects upon the system, the two following cases are adduced:—

E. C.—, aged fifty-six, labourer, had for many years been afflicted with valvular disease of the heart, with hypertrophy of the organ itself. He suffered at times most frightfully from palpitation, and had not been able to do any work for the last three years and a half; the least exertion produced the most distressing effects; even walking across a room would render him completely helpless for several minutes. He was given five minims of the magnetic phosphate of iron three times a day; this was continued for a week, at the end of which he expressed himself as being vastly better. The treatment was pursued for a month, when the patient was able to resume his work, a thing he had not done for more than three years, as previously stated. The violence of the heart's action was greatly lessened; the man could walk six or eight miles a day without inconvenience, and gained considerably both in strength and weight.

S. H.—, aged twenty-six, married, but no children, had since last March suffered more or less from severe pain in each renal region, cedema of the lower extremities, and general debility. The specific gravity of her urine was 1008, and was perfectly coagulable at a temperature of 200° Fahr. She was ordered the following mixture three times a day: solution of the magnetic phosphate of iron, six minims; iodide of potassium, one grain; water, one drachm. After the first eight doses of this medicine the quantity of albumen was diminished to nearly one-half, and on the seventh day from the commencement of the treatment there was not a trace of albumen to be found. The specific gravity of the urine was now 1021; the cedema of the limbs was fast disappearing; the patient had regained her appetite, and in three weeks from this date was completely convalescent. Instead of the pale, weak, and dropsical patient you saw a month ago, you had now before you a woman in the enjoyment of excellent health, able to perform her household duties, and expressing herself as "perfectly well."