

## Balance Sheet, 31st December, 1879.

LIABILITIES.		£ s. d.		£ s. d.	
DR.]					
Contributions	.. .. .			457	11 3
Journal Printing Account	.. .. .			40	19 0
Furniture	.. .. .			32	10 0
Subscriptions paid in advance	.. .. .			397	12 2
Advertisements paid in advance	.. .. .			20	10 5
Plant and Type	.. .. .			86	5 7
Taxes	.. .. .			16	13 4
Stationery	.. .. .			36	9 3
New Premises	.. .. .			21	12 10
Wood Fund	.. .. .			25	0 0
Due to Branches	.. .. .			5	4 6
Reprints	.. .. .			3	11 4
Copying	.. .. .			8	8 0
Scientific Grants	.. .. .			18	0 0
Cheques unrepresented	.. .. .			14	3 7
Postage on Journal	.. .. .			16	7 3
Reserve Fund for depreciation of Plant	.. .. .	125	0 0		
"    "    added for 1879	.. .. .	125	0 0		
Ditto redemption of cost of alterations of new Premises	.. .. .	50	0 0	250	0 0
"    "    "    1879	.. .. .	75	0 0		
				1,575	18 6
Balance on January 1st, 1879	.. .. .	6,219	8 6		
Profit for the year from Revenue Account	.. .. .	2,311	6 1		
Total excess of Assets over Liabilities	.. .. .			8,530	14 7
				£10,106	13 1
ASSETS.		£ s. d.		£ s. d.	
CR.]					
Subscriptions: amount due	.. .. .			727	15 2
Advertisements	.. .. .			1,769	16 7
Sundry Sales	.. .. .			103	8 6
Interest due on consols	.. .. .			46	0 1
New Premises, at cost	.. .. .			1,157	11 11
Furniture and Fittings	.. .. .			445	2 11
Plant and Type, at cost	.. .. .			865	18 7
Consols (£3,132 os. 6d.), at cost	.. .. .			3,000	0 0
				8,115	13 9
Cash in hand:—					
At London and Westminster Bank	.. .. .	1,974	12 10		
At Office	.. .. .	16	6 6		
				1,990	19 4
				£10,106	13 1

## STEWART FUND.

£400 invested in 4 per Cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

DR.]		£ s. d.	
To balance brought forward	.. .. .		12 4 8
Interest, one year, on £400	.. .. .		15 13 4
			£27 18 0
CR.]		£ s. d.	
By balance carried forward	.. .. .		27 18 0
			£27 18 0

## MIDDLEMORE FUND.

DR.]		£ s. d.	
To balance	.. .. .	511	6 5
Interest, one year, on £500 4 per cent. North British Railway Debenture Stock	.. .. .		19 11 8
			£530 18 1
CR.]		£ s. d.	
By purchase 4 per cent. North British Railway Debenture Stock	288 7 6		
Ditto	219 5 6		
By balance carried forward	.. .. .	507	13 0
		23	5 1
			£530 18 1

We have examined the foregoing accounts with the books and vouchers of the Association, and find the same to be correct.

PRICE, WATERHOUSE, & CO., 44, Gresham St., E.C.  
March 25th, 1880.

UNIVERSITY OF OXFORD.—At a congregation holden on April 15th, the following degree was conferred:—*Doctor in Medicine*: Ernest Henry Jacob, Corpus Christi College.

UNIVERSITY OF CAMBRIDGE.—At a congregation holden on April 15th, the following degree was conferred:—*Doctor of Medicine*: John Abercrombie, Caius College.

## SPECIAL CORRESPONDENCE.

## PARIS.

*Dr. Bury's Treatment of Cholera by Copper.*—*M. Bert on Anæsthetics.*  
—*The Carica Papaya.*

MORE than a quarter of a century since, M. Burq first enunciated his important discovery that copper utensils, etc., generally enjoyed an immunity against attacks of cholera; and this immunity M. Burq ascribes to the preservative influence of that metal on the economy, which, if sufficiently saturated with it, would be to cholera what vaccine lymph is to small-pox. The natural inference would therefore be, that we have in copper a valuable therapeutic agent, if not a specific against cholera. About four years ago, M. Burq observed that, during an epidemic of typhoid fever in Paris, among the workmen, amounting to more than thirty thousand, employed in the manufacture of copper articles, only two deaths occurred from the malady. From this, M. Burq concludes that the remedy would be worth trying in typhoid fever, in which affection he was in hopes it would be as beneficial as in cholera, and expressed himself to this effect in the paper he lately read before the Academy of Medicine on the above subject. M. Pidoux, however, refuted the assertions of M. Burq by stating that, during the epidemic of cholera in 1865-66, he confided to M. Burq's care forty patients of his hospital ward, all of whom were treated with copper, but not one of them recovered. This result is certainly not very encouraging, and, however useful the copper treatment may be in purely nervous affections, its efficacy in zymotic diseases is very questionable.

M. Paul Bert has undertaken a series of experiments with the view of studying the extent to which nitrous oxide, chloroform, and ether, may be employed as anæsthetics without danger. Until now, the proper dose of these agents has not been fixed; that is to say, the limit between the quantity sufficient to produce simple and temporary anæsthesia and that which would be fatal to life. With the exception of experiments by Baudelocque, by which he endeavoured to ascertain the exact dose of chloroform necessary to produce anæsthesia, nothing seems to have been done in this direction. M. Bert has endeavoured to supply the desideratum in a very interesting paper he lately read before the Biological Society of Paris, and in which he gave the results of his experiments, which he conducted as follows. A large vessel is provided with two tubes, one of which is connected with the trachea of an animal experimented on, and the other with a balloon filled with oxygen, containing a definite quantity of chloroform, and arranged in such a way that the animal breathes pure air together with the vapours of chloroform; the carbonic acid which the animal exhales is absorbed by some ground charcoal saturated with caustic potash. When the chloroform is reduced to vapour, the animal is made to breathe; it is then seen, as indicated by Baudelocque, that 20 grammes of chloroform to 100 litres of air suffice to make the animal sleep. Under these conditions, the animal goes quickly to sleep, and can breathe for an indefinite time. This quantity of 20 per cent. being represented by 1, if the dose of the chloroform be doubled and raised to two, death ensues very rapidly. If the mean quantity, 1 to 1½, be administered, the animal dies in fifteen minutes. Chloroform is, then, a poison, in so far that there is no intermediate dose between that which may be given with safety and that which proves fatal, whereas there are many other substances whose intermediate doses occupy a considerable range, and therefore deserve the name of medicaments, such as morphia, for example. The experiments of M. Bert have for the present been confined to chloroform. He will report on the results obtained by ether and by nitrous oxide under pressure, but he states that he is already in a position to express himself in favour of the latter. It is, however, certain that, if the effects of chloroform when first introduced into practice had been studied as above described, surgeons would never have administered it as they have done and still do every day, though clinical observation does not confirm the results obtained by physiological experiments; as, after all, the number of deaths from chloroform as an anæsthetic is very small in proportion to the number of persons to whom it is daily administered. In reply to a question put by one of the members present as to how children bore the inhalation of the nitrous oxide under tension, M. Bert replied that children enjoyed the same advantages with the gas as with chloroform, that is to say, they fell asleep with the same marvellous facility and rapidity with the one as with the other.

A few months ago, Dr. Bouchut introduced into therapeutics a new substance possessing strong digestive or peptonising powers, which he obtained from a tree which grows in Brazil, called the "carica papaya".

M. Wurtz, the celebrated chemist, has examined this substance chemically, and M. Bouchut medically; and they have submitted the results of their combined experiments to the Academy of Sciences, from which we learn that the plant partakes of the properties of the animal and vegetable kingdoms, and that the liquid, extracted from it by means of incisions through the bark and placed in contact with raw meat, coagulated white of egg, and gluten, softened these substances in a few minutes, which were completely digested in a few hours, at a temperature of 40° C. (104° F.). Milk was coagulated, and the precipitated curds were soon dissolved by it. False membranes removed from the throats of croupous patients, worms, such as ascarides and tæniæ, were affected in the same way. The two experimenters have come to the conclusion that this liquid contains a digestive ferment analogous to what is found in carnivorous plants. From this they have extracted a sort of vegetable pepsin, to which they have given the name of "papaine". When it was placed in contact at a dose of 20 grammes at 40° C. with 56 grammes of moist fibrin and 200 cubic centimètres of water, for forty-eight hours, adding to this a few drops of prussic acid to prevent putrefaction, the fibrin was entirely dissolved; the weight of the insoluble residue was less than that of the original pulp. Ten grammes of pulp, well washed, were digested at 40° C. with 17 grammes of moist fibrin and 50 cubic centimètres of water, and the addition of one drop of prussic acid. The whole was dissolved in twenty hours, with the exception of a residue weighing 3 grammes in a moist state. From the last experiment, it will be seen that there has not only been complete dissolution of the fibrin, but transformation into pepton, that is to say, complete digestion. The solvent property of this new substance seems to be so great that, even in the most minute quantities, it dissolves or digests animal tissues, whether in a physiological or a pathological condition, with the greatest facility. This suggested the idea of employing it as a therapeutic agent in neoplastic affections; and M. Péan, the eminent surgeon of the St. Louis Hospital, tried it in four cases of cancer, by injecting 1 gramme of a solution of papaine in the proportion of 1 to 10. The tumours, though very large, were speedily softened, and the liquid extracted therefrom by aspiration, and examined at the laboratory of the School of Medicine, was pronounced to resemble in all respects veritable pepton. Notwithstanding this apparently good result, M. Péan did not consider it prudent to continue the remedy, as the injections caused severe pain and a high degree of fever. Moreover, as above stated, it attacked every tissue, whether in a morbid or a healthy condition; it is, therefore, considered unsafe as a surgical application; but even in the medical cases it had to be given up, as, for instance, in dyspepsia, for which it was considered peculiarly suited; for it was discovered that, even administered in very minute doses, it had the effect of digesting the internal coat of the stomach.

## CORRESPONDENCE.

### CONVERSION OF BILIRUBIN INTO UROBILIN.

SIR,—By a series of simple experiments, I have succeeded in converting the colouring matter of bile into urobilin. The methods which I have adopted are different from any hitherto published. In so far as Maly's assertion with regard to the action of sodium amalgam on bilirubin is concerned, I can support him; but I have been led to draw a somewhat different conclusion as to the agent which brings about the transformation. I find that it is brought about by oxidation, and hope soon to be able to publish a full account of the facts in support of this view. Meantime, I wish to get credit for priority in the publication of this brief statement.—I am, etc.,

CHAS. A. MACMUNN, B.A., M.D.

### A NEW ANÆSTHETIC.

SIR,—In your last number, mention is made of a new anæsthetic, described as a combination of nitrous oxide gas and ethylen dichloride, and introduced in Edinburgh by Mr. Macleve.

I have not used the ethylen dichloride; but I suspect that the substance alluded to is ethidene dichloride, and I have been giving this with laughing-gas for the last fifteen months to more than a thousand cases in hospital and private practice. On the whole, I think ethidene dichloride a better anæsthetic than ether or chloroform, and can confirm all that Mr. Macleve says of it; but I have found that, when given beyond a certain strength, it causes vomiting and depression of the heart's action; and I fear that the plan recommended, of pouring it on a sponge in the tube or supplemental bag, without the means of regulating the strength of the vapour, will produce ere long results less

satisfactory. It will be found that half a drachm is not always sufficient; and, if a larger quantity be used and it run through into the inhaler, the dose may be made strong enough to produce serious results. Chloroform applied in the same way would answer very well in the majority of cases; but in an exceptional one it would yield the vapour too abundantly for safety.

I have found a small-sized gas and ether inhaler answer my purpose; but I have no doubt the portable regulating ether-inhaler, charged with about two-thirds of the usual supply of ether, would do equally well. In all cases of ethidene-inhaling, the pulse should be watched as well as the breathing.—I am, etc.,

J. T. CLOVER.

3, Cavendish Place, Cavendish Square, W., April 20th, 1880.

### PHYSICIANS AND PATIENTS.

SIR,—I should be glad to know if any of my brother physicians find themselves placed, as I frequently do, in a disagreeable position by the conduct of patients.

First let me repeat a canon of conduct for a consultant that appeared in your columns long ago. Consider (1) the interests of the patient; (2) those of the surgeon; (3) your own.

A patient comes twenty miles to consult me. I find he has been till the last week under the care of his ordinary medical attendant, a friend of my own. I refuse to prescribe except by communicating with him, which I purposely do by post. The surgeon is much annoyed with the patient, writes to me saying so, and that he declines further attendance on the case, as he had not been informed of any wish for a consultation, to which he would have gladly acceded.

What should I have done? What should I do?

1. The risk to the patient is that he has no treatment.

2. The risk to the surgeon is that another may be called in to take his place.

3. The risk to the physician is that he will get no more fees; and also that there is left in the mind of the surgeon a feeling of annoyance or reflection of annoyance that such a thing has occurred with that particular physician.

Again; I am called to a case by a surgeon. We meet two or three times. After the lapse of three weeks, the patient is brought to my house, convalescing, but not satisfactorily, since the surgeon had left off attendance, considering him able to do without more treatment. I send him off, telling him he has behaved very badly and ungratefully to his doctor, who had treated him so successfully, whom he ought to send for again at once. He does so, confesses what he has done, when the surgeon says he shall decline further attendance, as he has behaved in that way to him. Thereupon, he is brought again to me next day, and is very much surprised that I send him away with the assurance that under no circumstances should I prescribe for him except in consultation.

What should I have done? What should I do?

The risks are as before.

1. The patient suffers for want of treatment.

2. The surgeon will find himself superseded.

3. The physician gets no fee at all, as he could not charge for the two rebufs administered to the patient.

Ignorance of the etiquette of asking the surgeon for a consultation is almost universal, especially among the middle and lower middle classes. When I have remonstrated at the breach of it, I have been met with "I should not have thought of taking such a liberty with you as not to come here first to ask you to arrange it!"

I hold that the consultee should, as nearly as possible, never compete with the general practitioner by attending cases alone; also, that it is unjust, ungenerous, and unwise to do as so many do—prescribe for a case, ask no questions, and say nothing about it. They are always found out sooner or later. But if the feeling and conduct of the consulting physician be not reciprocated, what is he to live upon?

My name is freely at anybody's service, but I think it better to ask your permission to subscribe myself

F.R.C.P.

April 15th, 1880.

HOSPITAL FOR DISEASES OF THE CHEST, CITY ROAD.—The sixty-seventh anniversary festival of this hospital was held on Wednesday last at Willis's Rooms; His Royal Highness the Duke of Connaught in the chair. In proposing "Prosperity to the Hospital", His Royal Highness remarked that it was founded in 1814 by his grandfather, the Duke of Kent; its origin being, he believed, largely due to the exertions of Dr. Isaac Butts. He regretted to say that there was a debt of £1,500; and the object of the festival was to reduce this debt, and to increase the annual subscriptions by £500. Subscriptions to the amount of £1,590 were announced during the evening.