by their use flannel coverings are dispensed with, and the current is applied without needing to wet them. Various apparatus for the use of Dentists were also shown, and an ingenious application of a new Dental Hammer was in operation, serving effectually as an engraver or writer on metal.

Mr. JOHN CARTER (6A, New Cavendish Street, Portland Place, W.), whose many ingenious appliances for invalid furniture and surgical appliances are well known, made a special feature of his new Revolving Operation Table, for flushing operations, irrigations, etc., which greatly facilitate not only major operations and interference with the body cavities, but also the ordinary dressings in surgery, where cleanliness and a free use of water is desired. Much attention was attracted also by the Stanmore Bishop Hip Disease Bed, which was figured in the *BRITISH MEDICAL JOURNAL* of February 13th, 1892.

HALL's Coca Wine (Stephen Smith and Co., Bow). In this preparation the quantity of leaves used is standardised, and equals 1 drachm of the leaves to 2 ounces of wine. The wine claims to be prepared from Bolivian leaves without the addition of cocaine. It has a flavour, resembling fresh tea, which is exceedingly pleasant.

Many of the leading medical publishers showed a selection of New Books. Amongst those shown by Mr. H. K. LEWIS (Gower Street, W.C.) may be mentioned Professor Boyce's *Textbook of Morbid Histology*, illustrated by 130 coloured microphotographs; Drs. Steavenson and Lewis Jones's *Medical Electricity*, a new volume of Lewis's Practical Series; Dr. J. F. Goodhart's Lectures on *Common Neuroses*, and new editions of such well-known works as Martindale's *Extra Pharmacopœia*, Buxton's *Anæsthetics*, Lusk's *Midwifery*, etc.

YOUNG J. PENTLAND, Publisher (West Smithfield, London, and Edinburgh), sent copies of recent works, many of which are of considerable value and exceedingly well got up, and illustrated; as did also Messrs. WRIGHT AND Co. (Bristol) and F. A. DAVIS COMPANY. The F. A. Davis Company also contributed lifelike Anatomical Models of various kinds and sizes, made of strong *papier maché*, representing anatomical sections of the human body or of domestic animals, adapted for public schools and lectures. They showed, also, Pure Calf Lymph, prepared at the institutes, established in 1865 of Dr. Pissin, of Berlin, under direct control and supervision of the Imperial Health Office. This lymph is used for vaccinations made in the Royal Household at Berlin, and has been adopted by the German War Department for use in the army, where it has given during the last twenty-seven years thorough satisfaction. For the emulsified preparation, guarantee is given that it will remain active for a period of at least six months.

THE INFLUENCE OF VISUAL DISTURBANCES IN PRODUCING SEA SICKNESS.

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In a former paper (*BRITISH MEDICAL JOURNAL*, May 21st, 1892), it was shown that visual disturbances are greatly concerned in the etiology of sea sickness. I must, however, disclaim altogether the idea which has been imputed to me of claiming for visual disturbances that they are the exclusive cause of sea sickness. The following quotation from my paper proves this:—"The co-existence, occasionally, at all events, of blindness and liability to sea sickness shows, of course, that other disturbances besides those connected with visual impressions are capable of occasioning sea sickness. This, no doubt, necessitates the conclusion that in any general theory of the cause of sea sickness the visual disturbance theory cannot play an exclusive part." This paragraph seems to have escaped the notice of some of those who have criticised my statements.

At present my chief endeavour is to collect data for determining the extent to which visual disturbances are the cause of the sickness, and to suggest methods by which these visual disturbances may be prevented. Since my last letter on the

subject some further facts and criticisms of importance have reached me. They are as follows:—

Extract from letter of an eminent London physician, under date June 1st, 1892: "I cannot doubt that you have most ingeniously accounted for a great part of the phenomena of sea sickness, but not, I presume to think, for the whole of them. I suspect that sudden variations of intra-vascular pressure upon the nervous centres influenced by rapid and irregular changes of position, constitute cardinal factors in the trouble."

Another eminent London physician writes, under date of June 15th, 1892, concerning my essay on sea sickness: "I think there can be little doubt of the soundness of your views; and your experiments are remarkably interesting. I may mention I have myself occasionally succeeded by lying down and keeping my eyes steadily closed, in staving off the miseries of the Straits of Dover."

Dr. Mastin, of Mobile, writes as follows, June 27th, 1892: "So long as I can confine myself to my state room, and keep my eyes closed, I am free from distress. My attention was first directed to this in a voyage from New York to Liverpool. The sea was very rough, and I, very uncomfortable, went to my state room and lay down. As soon as my eyes were closed, I became quiet and experienced no discomfort from the roll and pitch of the vessel, but so soon as I would open my eyes and catch a glimpse of the towel which was hanging by the wall and tossing to and fro, just so soon would I become deathly sick. When I would avoid looking at the towel I would soon become relieved." Dr. Mastin is satisfied, from the experiments related in my paper, that "this is the correct solution of the vexed problem."

Dr. J. C. Reeve, jun., of Dayton, Ohio, writes, July 11th, 1892: "Your work on sea sickness has interested me, and I can agree with your result largely, but not to the extent of claiming visual impressions as the whole cause of the trouble. An incident sustaining your position, and perhaps of more value than any yet given in the *BRITISH MEDICAL JOURNAL*, because motion takes no part, occurred at the scene of a railroad 'wreck.' Our railway cars are, as you know, of one compartment, and with their great length, in some cases over 70 feet, and lofty and wide in proportion, make of the interior quite a *salon*. The backs of the numerous seats and the edges of the windows produce respectively two systems, a horizontal one of parallel lines and a vertical one of similar lines, and it is in these positions one is accustomed to see them. A car was tilted not only towards one side, but also with one end in a telescopic position. Now, to attempt to walk up the aisle, the passage way in the middle between the seats, was quite difficult, not because of the incline, but the inco-ordination, and produced a feeling of sickness in many of the sightseers and in myself."

Prevention and Treatment of Sea Sickness.—From what has been stated in my former papers it may be assumed that a very important part of the prevention of sea sickness consists in a persistent successful endeavour to prevent the occurrence of visual disturbances, these latter being in a very large proportion of cases the exciting causes of sea sickness.

This is not, of course, the sole treatment that may be employed to prevent sea sickness, for there are cases in which, visual disturbances being shut out, there is yet sickness. I wish, however, now to point out how to prevent occurrence of visual disturbances, hoping thus to obtain from those who may be induced to make trial of the method reports as to the results of their experience.

There are two methods available for preventing visual disturbances, of each of which I have had numerous practical and personal experiences: (1) To close the eyes continuously during the whole of the voyage, or (2) To fix the vision on some object away from the vessel, and thus to get rid of the sight of the complex movements of the vessel, or of any part of it.

Prevention of Sea Sickness in Short Voyages by Maintenance of Horizontal Posture and Bandaging the Eyes.—Individuals who are readily made sea sick should lie down as near the centre of the vessel as possible before the vessel begins to move, the eyes should be carefully bandaged, and this position maintained until the vessel ceases to move. This plan is especially useful in short voyages such as the "Channel" passage, which is proverbially a very trying one. This method, to have a fair chance, must be religiously carried out, the eyes not being allowed to perceive a vestige of light. In taking food or drink care must be taken not to disturb the eye bandage. It cannot be too strongly impressed on the patient that it is fatal to the success of the treatment if any object in the cabin can be even dimly seen. Those who fall into a sleep should be watched over, for it is likely otherwise that the bandage may become displaced, and a break-down will then probably occur.

It is possible in some instances, where the individual is strong minded, to dispense with the bandage, the eyes being firmly closed and the patient remaining in the horizontal posture. Few can, however, be trusted to go through the trial without the bandage successfully.

It is an undoubted assistance, if the bandage is employed, that the patient should remain in the horizontal position, because it is then easier to maintain the bandage in place. In

dealing with lady passengers, as a rule the horizontal position and the bandage are preferable to other plans for preventing visual disturbances.

The following is an interesting experience of effects of the preventive treatment above described:—

Mrs. —, aged 48, crossed from Dover to Calais, November, 1879, with her son, aged 20 years. Both great sufferers from sea sickness, and the mother in great dread of it from previous experience, both agreed to bandage the eyes and remain in a horizontal position. Report of results by the mother:—"As far as I was concerned the plan answered admirably. I did exactly as I had been instructed, and I felt no more of the motion than if I had been in my own bed at home. Others were ill, and even the noise of them did not set me off. We were two hours and a-half crossing." The son did not succeed in warding off the illness. He was tempted by the apparent smoothness of the water to do as others did, and it appears that he thereupon became very ill. On trying the plan of closing his eyes and lying down, it was found to have no effect in relieving him. The result in the case of the mother was good because the preventive treatment was well carried out. The result in the case of the son was negative, the prescribed preventive treatment having been neglected. Experience shows that once the sickness has obtained the mastery, the eye bandage and horizontal position will be comparatively useless until after lapse of some time.

Prevention of Sea Sickness in short Voyages by steady fixing of the Eyes on some Object not on the Vessel.—The passenger must, of course, be on deck. The best position is standing close to and looking over the bulwarks. The eyes must be steadily fixed on a passing ship or a portion of the coast line, or a cloud, or the horizon, and the greatest care must be taken to avoid seeing any part of the vessel. It is generally easy to carry out this treatment unless the weather is very wet, and even then by aid of a macintosh a male passenger can usually continue on deck. It is better to select a spot rather near the vessel's centre, but in paddle steamboats the centre parts are not so available as in screw vessels. It is essential that the fixation of the vision should be begun as soon as the vessel begins to move. Change of place should be avoided, for during such change the fixation of vision is lost, and the sickness may set in and be difficult to throw off. In some instances the sickness is kept at bay by sitting on the deck in a corner and perseveringly reading a book with wide margins, holding the book rather close to the eyes.

Preventive Treatment in Long Voyages.—The treatment required differs in different instances. We may, for practical purposes, divide cases of a liability to sea sickness into three classes.

A. The patient is known to suffer little, and during a day or so only. The patient should be encouraged to keep on deck and fix the eyes on objects away from the vessel, taking a rest now and then with the eyes quite closed. After a while the liability disappears.

B. The malady is more severe; the patient should remain lying down and at rest with the eyes bandaged for the first twenty-four hours, and food in a liquid form given occasionally. The second day the patient may be taken on deck with the eyes still carefully bandaged, and when on deck the patient, if feeling free from sickness, may be allowed to look at objects away from the ship. If not feeling well, the horizontal position or a deck chair may be employed, and the eyes closed by a bandage for a little longer.

C. Extreme liability to the malady, the patients having suffered very much on former occasions. The same treatment as in Class B should be enforced, but the patient should not be allowed to use the eyes for two or three days, the greatest care being taken to sustain the strength by giving liquid nourishment, as soup or beef-tea, or egg beaten up with water or milk, and, in cases requiring it, one or two teaspoonsful of brandy mixed with five or six parts of water every four hours.

I refrain from special recommendation with reference to the use of special drugs in cases of sea sickness; first, because experience has shown me that the preventive measures above described are, in the majority of cases, amply sufficient; and, secondly, because if drugs are given in the cases where the action of visual disturbances is prevented, it is impossible to say whether the patient is benefited by the drugs administered, or by the absence of visual disturbances. In order to obtain satisfactory proofs of the efficaciousness of those preventive measures drugs should not be simultaneously ordered for the patient. Before drugs are administered, especially the more powerful ones, proper medical advice should be sought. It is well known that sleep has a great influence in warding off sea sickness. If the patient lies down and falls off to sleep there is a double preventive action: (1) the visual disturb-

ances do not occur, and (2) the nervous centres are in a comparatively quiescent condition. In some instances the immunity from sea sickness during sleep may be due to the first, and in others the second. When medicines of a narcotic character are administered, and sleep thereby produced, the explanation becomes of course further complicated. Cases in which no sleep occurs, in which the eyes are bandaged and no medicines are given, offer the best evidence that the remedial action of the bandage is due to the absence of visual disturbances.

THE MEDICAL FACULTY OF MASON COLLEGE, BIRMINGHAM.

We publish elsewhere the inaugural address delivered by Sir G. Murray Humphry on the occasion of the opening of the first session of the Queen's Faculty of Medicine in connection with Mason College, Birmingham. The Faculty has hitherto formed a part of Queen's College, Birmingham, but the advantages which would flow from a more intimate union with the great science College have long been apparent, and are eloquently outlined by Sir G. Murray Humphry.

The transfer has necessitated the extension of Mason College. The new buildings for the medical school form two detached blocks, separated from the older buildings by a quadrangle, but connected by a covered enclosed bridge, which crosses the quadrangle and forms a continuation of the main central corridor. The new buildings, which cover an area of 12,000 square feet, have a separate entrance in Great Charles Street, so that Mason College now extends from Edmund

Street, where is the principal entrance, to Charles Street. The general scope of the extension is shown in the accompanying sketch-plan and section. It consists of two blocks