On examination, I found the os uteri elongated, yet thin, resembling very much the teat of the cow; it readily admitted the entrance of the finger, when the protrusion of the membranes, for a short distance, during each pain, was perceptible. Under such circumstances, I ordered an anodyne draught to be given immediately.

27. I was again summoned this morning, about 9, A.M.; the pains were now considerably increased, but, on examination, I found the os uteri in much the same state; the pulse being full and strong I bled her to $\frac{3}{4}$ ij., and this procured temporary cessation from pain; I then ordered the following draught to be taken directly:—*Tincture of opium*, 5j.; *peppermint water*, $\frac{3}{4}$ j.; and requested that I might be sent for on the return of the pain.

28. This day, about 6, A.M., I was again summoned, and found my patient suffering from the most acute pain; her bowels had been freely opened, and the pulse was slow and weak. On introducing my finger, per vaginam, I could perceive no alteration in the condition of the os uteri. Having tried all the means that have been recommended, or which I could myself suggest, with the view of inducing regular action, and finding them of no avail, I at once determined upon the administration of the ergot, and accordingly I gave Mrs. R. $\frac{3}{4}$ j. of it in $\frac{3}{4}$ ss. of tepid water, and in ten minutes after its use the pains assumed a more true uterine character, and, on examination, I found the membranes protruding beyond the elongated os uteri, which was also much reduced in length; the labour then proceeded gradually, and in the course of half an hour from the first employment of the ergot, she was delivered of a living son. I may here remark, that the mother and child are both doing well.

CASE 2.—On the 29th Sept., 1837, I was desired to attend Mrs. T., 40 years of age, and mother of several children. Her constitutional powers were much weakened from repeated abortions. On my arrival I found that she had miscarried about three weeks before of a four months' foetus, and the offensive smell on entering the room was sufficient at once to show that the secundines had not come away. She was exceedingly weak from loss of blood; pulse 140, weak and thready; bowels regular; tongue coated with a brown fur; urine passed in small quantities, and high-coloured; lower extremities oedematous; thirst urgent; anorexia, &c. &c. On examination I could easily introduce the finger within the os uteri, and I found the placenta plugging up the mouth of the organ, and the placenta could be easily broken down by the finger. Seeing that no time was to be lost I gave her 5j. of *secale cornutum* in $\frac{3}{4}$ j. of tepid water, and in an hour afterwards the placental mass was expelled in a complete state of

decomposition. Immediate relief followed its expulsion. I need not detail each day's progress towards recovery, as it was rapid, for my patient was able to sit up and attend to her domestic duties in one month from this time.

The insertion of the foregoing remarks and cases in your valuable periodical will oblige, Sir, yours obediently,

THOS. H. WARDLEWORTH, Surgeon.

Rochdale, Oct. 31, 1838.

PHENOMENA CONNECTED WITH SEA-SICKNESS.

To the Editor of THE LANCET.

SIR:—I have read in THE LANCET reports of the two discussions which have taken place at the London Medical Society, on the subject of sea-sickness, and as the phenomena and physiology have not been much entered into, may I take the liberty of forwarding you a few lines upon the subject, which is one of great interest. I remain, Sir, your very obedient servant

ROBERT STEVENS.

Kennington Common, Oct. 29, 1838.

In sea-sickness an individual perceives, principally by the incapacity of the muscles which maintain position, a confused knowledge of his relative position with fixed objects; but how this can produce such an affection can only be elucidated by examining certain facts connected with the affection itself, together with analogous affections, and our physical constitution.

Under whatever circumstances a person's knowledge of rest and position becomes confused, the sensation of sea-sickness, the identical affection, is produced. When travelling on a railroad, by observing the quick changes of perspective on the immediate side of the railroad, the affection can be taken up, *ad libitum*, by the eye; whilst during intoxication, in bed, where the loss of position is only imaginary, it can be kept off by the eye being directed to any fixed object. On a rough sea, the loss of knowledge of position, with regard to fixed objects, exists palpably, and the affection lasts till some clue to it can be obtained; and this clue is, in some cases, the perception of perpendicular gravity, with the art of using the muscles to maintain position in the uncustomary motion. In a carriage, the perception of rest and position becomes confused more readily with the back to the horses, hence the affection takes place more readily so. All persons have not equally the innate geometrical faculty of observing and becoming accustomed to changes of position. Some are so devoid of it as to lose the points of the compass after taking one turning in a carriage; hence the degree of liability. The sailor who can keep the account of position unconfused, on board

ship, cannot always do so in a boat, where the motion is more irregular, and he being less accustomed to it. Jactitation is not the only cause of the affection we call sea-sickness. As I have shown above, the identical effect can be induced by any cause that can confuse the perception of rest and position. That jactitation can produce a corresponding motion in our circulating fluids, so as to implicate the brain physically, is at variance with our physical constitution, both as regards the form of the arterial distribution and the laws of hydrostatics.

In sea-sickness the organs become affected in the same order as in syncope produced by mental circumstances; the difference in effect is owing to the exciting causes being unequal in degree and duration. That unusual motion, and other causes by which the perception of rest and position becomes confused, should produce an effect upon the great sympathetic system of nerves, which supplies functional power to the circulating and assimilating system, is no more wonderful than that syncope is induced, in some, by seeing a surgical operation; or that a thrill about the solar plexus is experienced on entering the examining hall of the College of Surgeons. These are metaphysical phenomena connected with our physical constitution, and that is all we know about them.

Physiology of Sea-sickness.—In sea-sickness the first impression is on the great sympathetic, so that functional power is denied to the assimilating system and to the circulating system partly. (See LANCET, vol. 2, 1836-7, p. 692. The causes why arterial blood flows from veins in phlebotomy during partial syncope.) Thus, functional power being withheld from the stomach, the diaphragm and abdominal muscles (which are not supplied by the sympathetic, but by the cerebro-spinal nerves) are called into action, and produce vomiting, which tends to excite the heart again; but if functional power were denied in toto to the heart, even for a second, the effect would be not sickness, but syncope and asphyxia.

The best treatment of sea-sickness would be to place the patient, with the eyes covered, in a hammock, slung with long strings, as near the centre of the ship as possible, and if any palliative be given, it should be large doses of ammonia with opium.

ARSENIC AS A PRESERVATIVE OF DEAD BODIES.

To the Editor of THE LANCET.

SIR:—As the last Number of your Journal contains an article on preserving bodies for dissection, by injecting them with a solution of arsenious acid, you will oblige me by giving publicity to my reasons for be-

lieving such a practice to be highly dangerous, as calculated to expose the dissector to breathe an atmosphere contaminated with arsenuretted hydrogen, which is, perhaps, the most deadly combination of arsenic. Nearly two years ago I first prepared, at the school in Great Windmill-street, a saturated solution of arsenite of potash, for the injection of a subject, at the suggestion of Dr. Hunter Lane, the lecturer on chemistry there, who had read an account of its effects in a foreign journal. The injection succeeded, producing precisely the effects and appearances described in your quotation; by passing into the veins and diffusing itself everywhere from the permeability of dead tissues, the solution, in a short time, left the arteries empty, so as to admit the usual red injection. Two or three more bodies were subsequently injected, and during the dissection of one of them, one of the pupils suffered severely from pain in the stomach and bowels, vomiting, and purging.

In the summer of 1837, I injected another body, and dissected it, with five of my fellow students, during the very hot weather of, I think, August. Decomposition was retarded considerably, but there was only one of us who did not suffer more or less indisposition, principally bowel complaints: and the subject gave out a peculiar odour, which I suspected arose from the arsenic rising in combination with the volatile products of decomposition. I took some portions of the body, at the end of five or six weeks, and subjected them to a careful examination, and though they had been drenched with the solution, in the first instance, I found no arsenic remaining.

As an *experimentum crucis*, I some time afterwards placed some animal substances, in a state of decomposition, on a dish, along with solution of arsenite of potash, and also powdered arsenious acid, and placed over them a bell-glass receiver to collect the gases given off, and, at the end of two or three weeks, I added the air contained in the glass to a sufficient quantity of pure hydrogen to make an inflammable mixture, and burnt this as it proceeded from a small jet, holding a piece of glass in the flame, and I procured a small quantity of metallic arsenic. I expressed my conviction that this mode of injection was dangerous, and it was discontinued at that school. I remain, Sir, your obedient servant,

JOHN SNOW, M.R.C.S.

58, Frith-street, Soho, Nov. 5th, 1838.

Professor Goodeve expressly mentions, in the article, an abstract of which we have given, that no ill effects were experienced by any of the persons engaged in the dissection of bodies injected with a solution of white arsenic.—ED. L.