angular fins, each rising 5 to 6 feet above the water, while the second view showed a large round head 6 feet in diameter, with huge flappers, which moved like those of a turtle. @@1 It would thus appear that, while, with very few exceptions, all the so-called “sea-serpents” can be explained by reference to some well-known animal or other natural object, there is still a residuum sufficient to prevent modern zoologists from denying the possibility that some such creature may after all exist.

Quite distinct in origin from the stories already touched on is the legend of the sea-serpent or *tinnín* among the Arabs (Mas'údi, i. 266 *sq.* ; Kazwini, i. 132 *sq.;* Damiri, i. 186 *sq.),* which is described in such a way as to leave no doubt that the waterspout is the phenomenon on which the fable rests. The *tinnín* is the Hebrew *tannin* (E.V. “ whale,” “ dragon ”), which in Ps. cxlviii. 7 might in the context be appropriately rendered “waterspout.”

In addition to the sources already cited, the reader may consult *Blackwood's Magazine,* vol. iii., 1818 ; Lee, *Sea Monsters Unmasked* (International Fisheries Exhibition *Handbook),* London, 1883 ; Cogswell, *Zoologist,* pp. 1841, 191. (1847); and Hoyle, *Proc. Roy. Phys. Soc. Edin.,* vol. ix. (W. E. HO.)

SEA-SICKNESS, a peculiar set of symptoms experi­enced by many persons when subjected to the pitching and rolling motion of a vessel at sea, of which depression, giddiness, nausea, and vomiting are the most prominent.

Although the vast majority of persons appear to be liable to this ailment on exposure to its exciting cause (the instances of complete and constant immunity being rare), they do not all suffer alike. Many endure distress of a most acute and even alarming kind, while others are simply conscious of transient feelings of nausea and dis­comfort. In long voyages, while many are affected with sea-sickness for the first few days only, others are tor­mented with it during the entire period, especially on the occurrence of rough weather. In short voyages, such as across the English Channel, not a few even of those sus­ceptible escape, while others suffer in an extreme degree, the sickness persisting long after arrival on shore.

The symptoms generally show themselves soon after the vessel has begun to roll by the onset of giddiness and discomfort in the head, together with a sense of nausea and sinking at the stomach, which soon develops into intense sickness and vomiting. At first the contents of the stomach only are ejected; but thereafter bilious matter, and occasionally even blood, are brought up by the violence of the retching. The vomiting is liable to exacerbations according to the amount of oscillation of the ship ; but seasons of rest, sometimes admitting of sleep, occasionally intervene. Along with the sickness there is great physical prostration, as shown in the pallor of the skin, cold sweats, and feeble pulse, accompanied with mental depression and wretchedness. In almost all instances the attack has a favourable termination, and it is extremely rare that serious results arise, except in the case of persons weakened by other diseases, although occasionally the symptoms are for a time sufficiently alarming.

The causes giving rise to sea-sickness have long been discussed, and a vast number of theories have been pro­posed. The conditions concerned in the production of the malady are apparently of complex character, embracing more than one set of causes. In the first place, the rolling or heaving of the vessel disturbs that feeling of the relation of the body to surrounding objects upon which our sense of security rests. The nervous system being thus sub­jected to a succession of shocks or surprises fails to effect the necessary adjustments for equilibrium. Giddiness and with it nausea and vomiting follow, aided probably by the profound vaso-motor disturbance which produces such

manifest depression of the circulation. Much has been made by some of the effects of the displacement of the abdominal viscera, especially the stomach, by the rolling of the vessel ; but, while this may possibly operate to some extent, it can only be as an accessory cause. The same may be said of the influence of the changing impres­sions made upon the vision, which has been regarded by some as so powerful in the matter, since attacks of sea­sickness occur also in the dark, and in the case of blind persons. Other contributory causes may be mentioned, such as the feeling that sickness is certain to come, which may bring on the attack in some persons even before the vessel has begun to move ; the sense of the body being in a liquid or yielding medium as it descends with the vessel into the trough of the sea, the varied odours to be met with on board ship, and circumstances of a like nature tend also to precipitate or aggravate an attack. Dr Chap­man’s view is that the essential cause is an undue afflux of blood to the spinal cord. But, in the few rare instances where sea-sickness has proved fatal, *post-mortem* appearances have been almost entirely negative, and only such as are met with in death from syncope.

Innumerable preventives and remedies have been proposed ; but most of them fall far short of the success claimed for them. No means has yet been discovered which can altogether prevent the oc­currence of sea-sickness, nor is it likely any will be found, since it is largely due to the pitching movements of the vessel, which cannot be averted. Swinging couches or chambers have not proved of any practical utility. No doubt there is less risk of sickness in a largo and well-ballasted vessel than in a small one ; but, even though the rolling may be considerably modified, the ascending and de­scending movements which so readily produce nausea continue. None of the medicinal agents proposed possess infallible properties: a remedy which suits one person will often wholly fail with another. There appears to be a wide concurrence of opinion that nerve seda­tives are among the most potent drugs which can be employed ; and full medicinal doses of bromide of potassium, chloral, or opium (the last two only under strict medical direction) taken before sail­ing appear to act usefully in the case of many persons. On the other hand, some high authorities have recommended the employ­ment of nerve stimulants, such as a small cupful of very strong coffee to be taken about two hours before sailing, which will fre­quently prevent or mitigate the sickness. When the vessel is in motion, or even before starting, the recumbent position with the head low and the eyes closed should be assumed by those at all likely to suffer, and, should the weather admit, on deck rather than below,—the body, especially the extremities, being well covered. Many persons, however, find comfort and relief from lying down in their berths with a hot bottle to the feet, by which means sleep may be obtained, and with it a temporary abatement of the distressing giddiness and nausea. Should sickness supervene small quantities of some light food, such as thin arrowroot, gruel, or soup, ought to be swallowed if possible, in order to lessen the sense of exhaustion, which is often extreme. The vomiting may be mitigated by saline effervescing drinks, ice, chloroform, hydro­cyanic acid, or opium. Alcohol, although occasionally useful in great prostration, is not generally found to be of much service, but tends rather to aggravate the sickness. Dr Chapman, in accordance with his view of the cause of the sickness, introduced a spinal ice-bag, which has been extensively employed and recom­mended ; but, like every other plan of treatment, it has only occa­sional success. The more recently proposed remedies, such as nitrite of amyl and cucaine, do not seem to yield any better results than the agents already mentioned.

SEATTLE, county seat of King county, Washington Territory, United States, on Seattle Bay, east side of Puget Sound, with Lake Union, 3 miles long, on the north, and Lake Washington, 25 miles long, on the east, is the largest city of the Territory. A ship canal to connect these lakes with Puget Sound is now (1886) in course of construction. Seattle has shipyards, foundries, machine- shops, sawmills, lumber-yards, breweries, and manufac­tories of furniture, carriages, cigars, crackers, patent medicines, boxes, and barrels. It possesses the Territorial university. The Columbia and Puget Sound and the Puget Sound Shore Railroads have their terminus here, whence large shipments of coal take place. The population in 1880 was 3533, and in 1885 it was estimated at 12,000.

@@@1 Dr Andrew Wilson has claimed this monster as a ribbon-fish, *Times,* loth June 1877.