

principles which act chiefly on the brain and nerves have a composition analogous to that of the substance of the brain and nerves." We know that opium, &c., produce mental derangement. Can it be by opium, &c., causing a preternatural quantity of those elements which are requisite for the formation of new brain, to circulate in the blood? If so, we have a simple solution of insanity resulting from interference with the due nutrition of the brain, as in inflammation, concussion, abscess, &c., for in all these cases we must have, if what Mr. Ancell states is correct, a similar condition of the blood to that which we have when opium, &c., have been taken into the system; that is, a preternatural quantity of those elements which are necessary for the formation of new brain. But, Sir, I fear I have already intruded on your valuable space, therefore for the present I conclude by remaining your very obedient servant,

J. SHEPPARD.

Stonehouse, April, 1844.

ZOOLOGY.—THE MICROSCOPE.

NOTICE OF ANIMALCULES FOUND IN THE STOMACH OF THE LEPAS ANATIFERA.

By HAMLIN LEE, Esq., Clapham.

FROM the great extent of letter-press which has been so liberally added to THE LANCET, I trust that a few of its columns will now be devoted to comparative anatomy, zoology, and other kindred sciences, a knowledge of which has been so often insisted upon in that Journal as indispensable to the accomplished surgeon and physician; and as the Microscopical and Physiological Journals are discontinued, I would fain hope that THE LANCET will supply their place, and, from its immense circulation, give a new impetus to the cultivation of those branches of natural history. Under this impression, I beg to transmit the following notice, which, trifling as it may appear to be, will, probably, prove interesting to many of your readers.

The food of the Cirripedes is stated in most works on natural history, to consist principally of small crustaceans, but, from recent observations, I find that those minute organisms, the infusoria (animalcules) and polythalamia (many-chambered shells), largely contribute to the support of these animals; and this discovery is also exceedingly interesting in another point of view, for it has led to the detection of numerous recent forms, identical with those which constitute so large a proportion of the infusorial earths of Virginia;* thus confirming and extending the observations of Mr. Edwin Quekett.†

Having obtained some living specimens of Lepas anatifera (duck-barnacle), I submitted a portion of the pulpy contents of the stomach to a microscopical examination, and found it to consist almost wholly of polythalamia and infusoria, of the same genera and species as those which abound in the Richmond eocene deposits. So perfect is the resemblance, not only of the individual forms, but also of their collocation, that a slide of the substance obtained from the lepas, was supposed, by an observer familiar with the infusorial earths, to be a collection of the fossils; the only difference in the appearance of the recent and fossil organisms

consists in some of the former, which are but partially digested, containing colouring matter.

In vols. 42 and 43 of the "American Journal of Science," are some plates accompanying Professor Bailey's papers on American Bacillaria (a family of infusoria) with figures of numerous fossil infusoria of Virginia. In the second volume of the "Microscopical Journal," Mr. E. Quekett has given representations of several recent species from the arctic seas; and in Dr. Mantell's new work, "The Medals of Creation," will be found a beautiful lignograph, comprising a few forms of the Richmond fossils.

Of the species which I have at present identified, I may mention as the most interesting—

Coscinodiscus (sieve-like disc) radiatus, C. patina, C. lineatus—(See American Journal of Science, vol. 42, plate 2; and Medals of Creation, lignograph 48, page 224.)

Dictyocha (barred animalcule), two species—(American Journal of Science, vol. 43, plate 5.)

Pyxidicula (box animalcule)—(American Journal of Science, vol. 42, plate 2.)

Actinocyclus (radiated disc), two species—(American Journal of Science, vol. 42, plate 2; and Medals of Creation, lignograph 48.)

Gaillonella, several species.

Navicula (boat-like animalcule), several species.

Some species of Triceratium (three-horned animalcule), nearly like those Mr. Quekett has figured.

One species of Xanthidium, as in Richmond earth.

To these must be added, as not the least interesting, two Xanthidia, identical with the species common in chalk flints, viz. X. tubiferum and X. hirsutum.

Of the Polythalamia many specimens occur of the well-known Genera Rotalia and Textularia (entwined shell)—(See Medals of Creation, page 232.) In the cells of one of the rotalia were several bacillaria, as in the recent Nonionina of Ehrenberg, figured in "Medals of Creation," page 233.

The specimens of Lepas which I have examined had also feasted plentifully on numerous other forms, with the precise relations of which I am unacquainted; and, in addition to these, Mr. Reginald Mantell has discovered in the same substance other species, perhaps genera, of infusoria.

Thus the highly interesting discovery first announced by that distinguished zoologist, M. Ehrenberg, of living animal organisms, identical with those which existed in that remote period of the earth's physical history, when the chalk and eocene formations were deposited, receives additional corroboration.

Clapham Common, April 1, 1844.

INJURIES TO THE EYE.

By HOLMES COOTE, Esq., Surgeon to the North London Ophthalmic Institution.

UPON a former occasion I endeavoured to show that in cases of extravasation of blood into the anterior chamber of the eye, the employment of mercury for the purpose of promoting absorption was uncalled for. I related some cases to prove that, under favourable circumstances, such extravasated fluid might be wholly removed within a week, so considerable is the amount of activity with which the absorbent vessels of the membrane of the aqueous humour are endowed. Now, it will be found that when absorption is retarded, when three, four, or five weeks pass over, and the iris yet remains concealed from view, the violence inflicted upon the organ has been greater, the tissues of the eye have sustained severer injury, and in consequence chronic inflammation of the deeper parts is going on, which will, eventually, terminate in atrophy of the globe, and complete loss of vision. We may then, as a general rule, regard the rapidity with which the blood disappears as a favourable symptom. The patient, with a mass of blood in front of the pupil, finds that he cannot see, and is extremely desirous of knowing whether his sight is likely to return; and it is, of course, an object to be able to assure him, at as early a period as possible, that all is going on well. Bearing in mind that inflammatory

* See Silliman's "American Journal of Science."

† "Mr. Edwin Quekett, whose talents and acquirements, as a naturalist, are of the highest order, has detected, in a recent state, attached to some zoophytes, preserved in spirits, and brought from Melville Island by Sir Edward Parry, several discs, resembling those figured lignograph 48. These are in pairs, and there is no doubt that the fossil cases, like the recent, belonged to bivalve infusoria. Other forms, resembling those of the Richmond earth, were also found, and a tri-radiate spiculum of a sponge. Dr. Bailey has also observed two kinds of living infusoria, which are identical with fossil species. Hence it appears, that in the northern seas of the present day, there exist minute animals precisely similar to those which lived in a much lower latitude at some very remote period."—Medals of Creation.