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 in 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*.

disturbance interferes with and arrests the action of the absorbent vessels, we may justly regard the rapid removal of the effused blood as a proof that the interior of the eye is in a quiet state, and also that the deeper seated structures have sustained no very serious injury. In the following case the eye was severely wounded, blood was effused into the anterior chamber, but inflammation attacked the internal tunics, and atrophy of the globe followed. At the expiration of five weeks, the diminution in the mass of blood in front of the iris was considerable.

An Irishman, (July 24, 1840,) whilst staggering down a street in a state of intoxication, fell against the iron rails in front of a house, the sharp end of one of which entered the right orbit. Upon examination, it was found that there was intense bright redness and chemotic swelling of the conjunctiva from extravasation; extravasation of blood into the anterior chamber, concealing the iris from view; long lacerated wound of the sclerotica; vision lost; pain about the temples and eye; bowels confined. To be cupped to the extent of twelve ounces on the right temporal region; a three-grain calomel and jalap pill; cold lotion.

25. Twelve leeches.

28. State of the eye unaltered; he complains of headache and drowsiness. Continue the lotion; senna draught occasionally.

August 12. Occasional deep-seated pain in the eye; anterior chamber still filled with blood.

28. The eye obviously reduced in size; feels softer than natural; the blood in the anterior chamber is being slowly removed; vision lost.

The blood that we find in the anterior chamber most probably derives its source from some of the vessels of the iris, and it is not unreasonable to suppose that the marks, or stains, that remain upon the anterior surface of that membrane, long after the mass of extravasated blood has been removed, point out the spots where the vessels gave way, and from whence the hæmorrhage proceeded. The blood sometimes coagulates, sometimes remains in a fluid state; when fluid, it moves with the position of the body, and falls to that side to which the head is inclined. It is worthy of remark, that whether fluid or not, the blood does not mix with the aqueous humour.

It rarely happens that this accident to the eye exists uncombined with other injury. Most usually the conjunctiva is torn, and extensive ecchymosis takes place between it and the sclerotica. In this latter situation we find that absorption does not go on nearly so rapidly as it does in the anterior chamber. I remember the case of a coachman, who was cut with a whip across the left eye, in consequence of which a large quantity of blood was effused into the anterior chamber, and a long wound was inflicted upon the conjunctiva, attended with considerable ecchymosis. At the end of three days the anterior chamber was clear, but the swelling of the conjunctiva with its ecchymosis diminished but little, was yet to be seen, when, at the end of a fortnight, he resumed his work. For some time after these accidents, the eye remains irritable and weak, and subject to profuse lachrymation. In yet severer cases concussion of the retina follows.

I believe that some amount of concussion exists in the majority of these cases; as, however, the retina, when it admits of recovery, generally resumes its functions at the end of two or three days, and as up to that time the pupil is occupied by a mass of blood, we have no means of judging accurately upon the point. The same violence that produced the extravasation of blood very frequently causes a wound of the conjunctiva, sclerotica, or cornea. When such wounds are of no very great extent, and have been inflicted by a sharp, clean instrument, inflammatory reaction is not a common occurrence. This remark applies especially to wounds of the cornea, a tissue but little vascular. Workmen employed in iron-foundries are in the habit of removing portions of heated metal from the cornea with an instrument of their own making, and I was informed by one, that although it was a common occurrence for them to open the anterior chamber, he never knew any evil effect result, save some irritability of the eye for a

few days after. When, however, wounds are of greater extent, are inflicted by a blunt instrument, and accompanied with laceration, and contusion of the delicate textures of the eye, we may expect violent vascular reaction, and constitutional disturbance, of which one of the most exhausting symptoms, namely, convulsive vomiting, is commonly present, and resists, at times, every remedy we possess. When the active symptoms subside, or are subdued, inflammation of a chronic character commences in the deeper tissues, terminating in atrophy of the globe, and complete loss of vision. The patient may have occasional glimpses of light and imperfect vision, but sooner or later the globe sinks, and sight is gone, or a staphylo-matous growth protrudes from between the lids, requiring a subsequent operation for removal. This is regarded as a yet more unfavourable termination. Cases, however, are occasionally seen, in which the eye has been destroyed by some violent injury; and yet, such is the state of nervous depression into which the patient is thrown, that we witness little or no inflammatory reaction. It may even be necessary to administer wine and stimuli.

The result is the same—atrophy of the globe and complete amaurosis. The following case was treated in St. Bartholomew's Hospital, in the year 1839, at which time I was house-surgeon to that institution:—

John Hawley, aged fifty-four, subject to violent fits of passion, was following a lad, with the intention of striking him with a heavy stick. The boy, being alarmed for his safety, pushed out a thin cane that he was carrying, and made some passes, as with a foil, to defend himself. The cane entered Hawley's left eye, and inflicted an extensive wound along the outer side of the orbit; the director passed for full two inches into the orbit; the superior palpebra and the conjunctiva, on the upper surface of the eye were torn and divided; the globe had been pushed from the orbit, and had burst. Unfortunately he was quite blind of the opposite eye. He was in a state of excitement and despair approaching to madness. Pulse very small and feeble; extremities cold; frequent vomiting.

November 17 (the day following). Continues in the same state; pulse very feeble; hands and feet cold; constant vomiting; much depressed.

19. Two ounces of gin at night.

20. He continues in the same low state; pulse rather more feeble; some dusky redness about the orbit. Eight ounces of gin daily.

December 4. The eye slowly collapsing; vision lost; the swelling and redness of the surrounding parts somewhat abated. He has been taking for the last few days port wine instead of the spirit.

9. Moves about the ward; and shortly after quitted the hospital in the charge of his friends. In about eight months afterwards he was readmitted, having cut his throat in a fit of insanity. Died.

It may be remarked that in none of the cases related in this paper, was it thought right to administer mercury for the purpose of affecting the system. It may be as well to state what are those circumstances under which we may have recourse to this remedy with advantage. If it be borne in mind how much mercury is able to effect, but little uncertainty can exist upon the subject. It is useless as a stimulus to the natural activity of the absorbent vessels. It is wholly unable to subdue active inflammation, but it exerts a marked beneficial control over chronic inflammation of particular tissues, such as, for example, the retina or iris.

When, therefore, these membranes become accidentally inflamed, and the eye is in other respects tolerably sound, as, for instance, when iritis is caused by the irritation of extravasated blood, or when retinitis follows some external injury, such cases require mercury in precisely the same way as if the inflammation depended upon some internal cause; but it is especially necessary to distinguish cases that admit of recovery, from those in which (from their being incurable) atrophy of the globe is the best termination that the nature of the case will allow, and in which the chronic inflammation of the internal tunics that precedes the shrinking of the globe, can hardly be regarded as a morbid action.

To the judgment and discretion of the surgeon must the

settlement of these points be left. Familiarity with such cases, and experience, can alone enable him to act with that decision, and possess that certainty which, whilst it preserves to the patient the best chance of recovery, guards him from unnecessary severity of treatment.

Argyle-street, Feb. 1, 1844.

FOREIGN BODIES IN THE EAR AND NOSE.

To the Editor of THE LANCET.

SIR,—In a recent number of THE LANCET is a communication from Mr. Clendon on the removal of foreign substances from the meatus auditorius. The writer alludes to a lecture delivered by Sir B. Brodie, in which that excellent surgeon states the case of a child that died from the effects of having a pea in the ear; the attempts to remove it having produced inflammation of the tympanum that extended to the membranes of the brain, causing death. Mr. Clendon says that he has invented forceps peculiarly adapted to the extraction of foreign bodies from the ear, and liberally offers the invention for the benefit of the profession. I am, however, of opinion that a more simple and a better mode exists of removing bodies from the ear than the use of any extractive means by instruments, the object being more readily and easily obtained by using a syringe. Some weeks ago a boy was brought to me with a piece of slate-pencil in the ear, which had been pushed farther in by the schoolmaster in a fruitless attempt to extract it. It was evident that to attempt to extract the pencil by instrumental aid, in such circumstances, would not only be difficult, but might induce serious mischief, as in the case alluded to by Sir B. Brodie. I therefore had recourse to the use of the syringe, and the father was as much taken by surprise with the instant success of the simple means as were the courtiers of Ferdinand when challenged by Columbus to make an egg stand erect, and after acknowledging their inability to do so, the illustrious navigator showed them it was done by crushing the end. This plan is not brought forward as anything new, since it has, without doubt, been practised in all ages and countries, but with the hope that the hint may prove useful, suggesting an expedient very easy to be had recourse to in a case of difficulty.

In the removal of foreign bodies from the nares the most convenient mode is to take an eyed-probe, such as is contained in all pocket cases of instruments, and having slightly bent the eyed end, to use it on the principle that the vectis is employed in midwifery. I never found the least difficulty in removing substance; in this way, and the subjects of such cases being generally children, it is much easier than attempting to extract them by means of forceps, however ingeniously constructed or dexterously used. I am, Sir, your obedient servant,

EDWARD HATFIELD.

Stamford, April 2, 1844.

THE DIAGNOSTIC SYMPTOMS OF FACIAL PARALYSIS.

To the Editor of THE LANCET.

SIR,—If you think the following note worthy of a place among your columns I shall be much obliged by your publishing it. I am, Sir, your obedient servant,

WILLIAM TODD WHITE.

Richmond, April 4, 1844.

To Dr. MARSHALL HALL.

Sir,—In your interesting communication to THE LANCET of the 20th March, describing a case of paralysis of the *portio dura*, two points appear quite unintelligible to me, which I shall be obliged by your explaining, through the medium of this Journal, at your convenience:—

1st. You describe the face of the patient in the lunatic asylum as being “drawn exceedingly to the right side,” *ergo*, in this case showing that the paralysis was in the left side, the right being drawn up by the unopposed antagonising muscles, but “the right eye remained open” when you “desired the patient to close the eyelids,”

which would indicate that the right orbicular muscle was paralysed. How is this explained?

2ndly. In describing the diagnostic characters of *hemiplegia* of the face, you state “the eyelids of the affected side can always be closed, though not so firmly as those of the other side;” and again, “the tongue is generally affected, and protruded to the affected side.” May I ask which you mean by the affected side? If, as I understand, the affected is the paralysed side, how is it that the eyelids of this side can be closed, or the tongue protruded towards it? since the orbicularis palpebrarum would be paralysed, and the opposite muscles being deprived of their antagonising force, which keep the features and the tongue in equilibrio, would then draw them to that side which was not paralysed. If the term *affected side* is intended to refer to the retracted features, and consequently opposite to the paralysed, the second point to which I have called your attention is intelligible. I remain, Sir, your most respectful and obedient servant,

WILLIAM TODD WHITE.

Richmond, April 4, 1844.

SPECULUM ANI IN THE OPERATION FOR FISTULA.

To the Editor of THE LANCET.

SIR,—Having occasion to operate in a case of fistula in ano, I was induced to practise a modification of the usual plan, which, from its increased facility, I would venture to lay before the profession.

Instead of the finger in the rectum I introduced a speculum, so that the space between the blades corresponded to the track of the fistula. By means of a director and bistoury the slitting up of a sinus in any other part of the body could not have been effected with greater ease than that with which the operation was now performed.

Contrasted with the usual mode the parts about to be divided are in a state of tension—such an advantage, among others, that, if I do not judge too partially, I think that those who once try the plan will, like myself, determine upon its repetition. I am, Sir, yours respectfully,

WM. CLULEY.

Ashton-under-Lyne, March 27, 1844.

FOREIGN DEPARTMENT.

ACADÉMIE DE MÉDECINE, PARIS.

LETTER FROM M. LEROY D'ETIOLLES TO THE ACADEMY ON THE EXTIRPATION OF CANCEROUS TUMOURS.

WHEN the discussion on the differential diagnosis of cancerous and fibrous tumours is exhausted the academy will be obliged to examine the practical question of the utility of extirpation of cancerous formations. With a view to throw additional light on this part of the question I beg leave to recal a few of the figures contained in the documents which I have already laid before the academy.

Do surgical operations prolong life? Such is the first question which presents itself to our mind. The answer given by statistics is as follows:—The mean duration of life on non-operated individuals is five years for men, and five years and six months for females; whilst for those who are operated on, the mean duration is five years and two months for men, and six years for women. An important remark, however, is that the class of non-operated individuals comprises cancer of the viscera, so necessarily and so promptly fatal. If we subtract these, the internal forms of cancer, we find, for non-operated men, a mean duration of six years, that is, a year longer than for the operated.

If we inquire how long a space of time has elapsed between the apparition of the disease and the operation, on the one hand, and the operation and death, on the other, taking the mean results of three hundred operations, we find that the duration of life has been three years and nine months before the operation, and one year and five months after the operation. For women