holding his head with both hands, complaining of great pain in the forehead, which abated in a few minutes; the face was much flushed, but became pale, with an expression of sadness on the cessation of the pain; the eyebrows were contracted; the eyes dull and heavy; the pupils dilated, but contracting to the light of a candle, and the upper eyelids relaxed; heat of skin natural; pulse 70, and firm; much throbbing of carotids; no secretion from nostrils; the Schneiderian membrane redder than natural; tongue white, and no thirst. Has had no medicine, except a few "worm powders." Ordered the head to be shaved, six leeches to be applied, and four grains of calomel at bedtime.

The calomel was given, and operated twice, after which the headach and vomiting ceased. The father did not think it necessary, therefore, to shave the head or apply the leeches; and on the 4th took him to a neighbouring town. On the 5th he again took him to a town five miles distant; he seemed to enjoy himself, walked all the way home, having had only one paroxysm of headach, and vomited once during the day. During the night he became restless, and complained of headach, but slept towards morning; a few minutes before eleven, a.m., he awoke complaining of the headach; a little girl only being in the house, went out to apprise his father, but before he arrived the boy had expired, apparently in entire possession of his faculties.

Inspection Forty-six Hours after Death.

No emaciation; countenance placid.

Head.—The sinuses of the dura mater gorged with a dark-coloured fluid blood. That portion of the arachnoid lying over the middle lobes of each hemisphere showed several opaque spots. The pia mater was unusually vascular, and its vessels contained numerous bubbles of air. The convolutions much flattened; the cineritious matter of a pinkish hue; the medullary matter, when cut into, presented an immense number of bleeding points.

The ventricles contained three and a half ounces of a limpid fluid. The choroid plexuses were firm and vascular, and did not present the usual blanched appearance when fluid has been present. The whole floor of each lateral ventricle, and a small portion of the anterior lobe of the right hemisphere, were in a complete state of ramollissement, the parts being reduced to a greyish-coloured, pulpy mass; the other parts of the cerebrum were healthy. The left lobe of the cerebellum was healthy. On cutting into the right lobe it was found to consist of an apparently healthy shell, as it might be called, varying from a quarter to half an inch in thickness, the central substance being reduced to the consistence of pus; and imbedded in this was a tubercle as large as a walnut, rather

oblong, nodulated, and grey in colour, the external covering resisting the knife; internally it presented no trace of organic structure, and resembled the medullary matter of healthy brain. The corpus olivare of the right side was much enlarged and firm. The medulla oblongata very firm. A considerable serous exudation in the spinal sheath; other organs not examined.

The absence of severe symptoms and the sudden dissolution are the points worthy of observation in this case. The headach and vomiting were the only symptoms, showing that a guarded prognosis ought to be given when they are present in anomalous cases. The experiments of Flourens, Serres, Magendie, Bell, and others, would lead us to expect that such a state of brain would produce either vertigo, convulsions, rigidity of extremities, strabismus, optical delusions, blindness, deafness, impaired or increased sensibility of skin, aphonia, loss of muscular power, aberration of mind, yet one and all were absent; and we have seen that the patient continued at school till a few days before death, and on the night before his death walked five miles. I might extend this paper by reasoning on these physiological observations, but it would be an unsatisfactory labour; and although from the acknowledged talents of the observers, I cannot say "*experientia stultorum magistra*," still this and similar cases show that we have as yet scarcely begun to deduce correctly the morbid state of the brain and nervous system from symptoms during life.

NOTE ON THE RESPIRATION OF BIRDS.

By MARSHALL HALL, M.D., &c.

IN the new edition of M. Flourens' admirable work, an account is given of an experiment in which the cerebrum and cerebellum being removed, and the pneumogastrics divided, in a pigeon, the respiration still continued.

Now, it is well known that the respiration in birds, as in insects, is *diffused*. It is ascertained that the different segments of the insect possess distinct nerves and nervous centres (analogues of the medulla oblongata) for respiration. This is not the case with birds; but

1. If the air-cells throughout the body be, like those of the lungs, supplied with nerves;
2. If these nerves be derived from the spinal nerves, like the other nerves of the general frame; and

3. If these spinal nerves possess the *excitor* property of the spinal nerves in other animals;—

If these things be, then the result of the experiment is precisely what the theory of

the reflex nature of the respiratory acts would have led us to anticipate.

When, in mammalia (especially the young), the cerebrum and cerebellum are removed, the respiration continues as a purely reflex action, exerted principally through the medium of the pneumogastric nerves; when these are divided, in addition, a few and rare acts of respiration occur from the influence of the trifacial and spinal nerves. In birds these spinal nerves are as really exciters of respiration as the pneumogastric itself; under their sole influence, therefore, respiration may continue for hours.

A series of experiments illustrative of the relative value of each of these parts of the nervous system would be highly valuable.

There is no reason, from any facts which we yet possess, to think that the medulla oblongata is the *primum* mobile of respiration. As the *secundum* mobile, the key-stone of the reflex arcs, its office is most clearly established.

London, May 11, 1842.

THE MINER'S ELBOW.

To the Editor of THE LANCET.

SIR,—I notice that Mr. Chance, at the Westminster Medical Society, on April 2, makes the following remark, namely, that "he had met with a fluctuating tumour at the posterior part of the elbow-joint. He opened it with a lancet, and found it to be a serous cyst; it refilled, but after opening it a second time the fluid had not again collected."

In the mining district in which I am situated this fluctuating tumour at the posterior part of the elbow-joint is of frequent occurrence, in consequence of the narrow passages the miner has occasionally to pass through, in ascending from and descending to, and sometimes to work in; the posterior part (or cap) of the elbow-joint is bruised, in consequence of which the bursal sac becomes inflamed, and an effusion of serum follows. To this tumour I have for several years past given the name of "the miner's elbow," its cause and its treatment being the same as the "housemaid's knee," which is simply this: in the early stage tepid bathing with water and a warm bread-and-water poultice, three times daily; and after this has been applied a few days, and the inflammatory action subdued, the dispersion of the fluid should be accomplished, either by the application of about half a drachm of the hydriodate of potash and iodine ointment combined, or of a lotion of two drachms of tincture of iodine to an ounce of rectified spirits of wine; to be used in drachm applications over the tumour three times a-day. The same treatment will cure the housemaid's knee; a complaint to which miners,

from occasionally being obliged to kneel during their labour, are very liable.

I have seen several cases where this fluctuating tumour at the elbow-joint (miner's elbow) has burst, and from neglect a fistulous opening into the sac had been the result, in which nothing could be done but laying open the sac by a crucial incision, and causing granulations to spring from the bottom of the sac, to consolidate the whole. I am, Sir, your obedient servant,

EDWYN GURNEY.

Camborne, Cornwall,

May 7, 1842.

*** At page 191 of the first report of the commissioners for inquiring into employment in mines, presented last week to the House of Commons, the following passage occurs (ED. L.):—

"790. The sub-commissioner for the Forest of Dean gives the following account of a painful disease of the joints, common in that district:—'The men employed in cutting down the coal are subject to inflammation of the *bursæ*, both in the knees and elbows, from the constant pressure and friction on these joints in their working postures. Where the seams are several feet thick, they begin by kneeling and cutting away the exterior portion of the base. They proceed, undermining, till they are obliged to lie down on their sides, in order to work beneath the mass, as far as the arm can urge the pick, for the purpose of bringing down a good head of coal. In this last posture the elbow forms a pivot, resting on the ground, on which the arm of the workman oscillates as he plies his sharp pick. It is easy to comprehend how this action, combined with pressure, should affect the delicate cellular membrane of the joint, and bring on the disease indicated. The thin seams of coal are, necessarily, altogether worked in a horizontal posture.'

PHYSIOLOGISTS AND PHRENOLOGY.

To the Editor of THE LANCET.

SIR,—Whilst I cordially concur in the opinion expressed by Dr. Dick, that the discussion respecting the application of phrenology has occupied too much of your space, yet, as in his valedictory effusion he has introduced an objection, which I consider to be as unfounded as his previous observations, I cannot allow him to publish incorrect statements without offering a few remarks in reply. A brief notice is also requisite, because in the present instance a popular fallacy has been advanced, which can sustain neither the test of principle nor fact.