

direction. He had never received a blow on the testicle. An incision being made, the foreign body, which, as was suspected, was quite free, was readily removed. In form it was ovoid, in colour white and shining. When divided it was seen to consist of two substances, a central yellowish matter, and a fibrous tissue, arranged in concentric laminæ.

The author remarks, that although this peculiar body was perfectly unattached, the mark of a pedicle rendered it probable that it was once connected with the serous membrane, and that the pedicle had gradually become attenuated until it was entirely separated. He regarded this body as the exciting cause of the fluid contents of the hydrocele.

## General Retrospect.

### ANATOMY AND PHYSIOLOGY.

#### *On the Presence of a free Acid in the Lungs.*

By M. VERDEIL.

This writer states that he has found in the parenchyma of the lungs of mammalia a distinct acid, which he has succeeded in obtaining in an isolated, perfectly pure, and crystallized condition. The tissue of the lung of an animal lately killed did not sensibly redden the blue turnsole paper. But when a mass of lung, cut up very fine, was macerated in warm water, it was found that the liquor possessed an acid reaction; which reaction became very manifest when the albumen and blood globules which coloured the liquid were coagulated.

This acidity is stated to be owing to a free acid in solution, in the juices with which the lungs are impregnated. This substance is formed of carbon, hydrogen, azote, and oxygen, in definite proportion. It crystallizes in brilliant needles, strongly reflecting the light. It is somewhat soluble in cold water, nearly insoluble in cold alcohol, but more soluble in boiling alcohol. Boiling absolute alcohol dissolves a very small quantity only. It is completely insoluble in ether. It possesses an acid reaction, and expels the carbonic acid from carbonate of potash and soda. When heated to 140 degrees, it does not lose water of crystallization; at a higher temperature it crepitates, becomes opaque, and is decomposed, giving rise to empyreumatic products; it forms a carbonaceous mass, which disappears completely, leaving no trace.

The parenchyma of the lungs, therefore, contains a free acid. The author has also been able to prove that a portion of the acid which he extracted from the lungs existed in the tissue as a salt of soda.

In reflecting upon the probable use of this acid he observes that, submitted to the general laws which govern chemical substances, it ought to decompose the alkaline carbonates carried by the blood; these, meeting in the lungs with the acid contained within the tissues, ought to form a new salt of soda, and carbonic acid should be set free.

The pulmonary vesicles constantly secrete this acid, which, coming in contact with the carbonate of soda

brought by the capillaries, the acid combines with the soda of the carbonate; the carbonic acid becomes free and passes off in respiration. The new salt of soda returns in the blood where it was found, not free, but combined with the soda. This research was continued; all the characters of the acid and the phenomena of respiration concur to verify, not a theory, but the fact, that an acid constantly secreted by the parietes of the pulmonary vesicles decomposes the carbonate of soda of the blood, and sets its carbonic acid free. This fact explains, amongst other physiological observations, the decomposition of the alkaline cyanurets and bicarbonates injected into the blood, when they arrive in the lungs, as M. Bernard has observed.—*Gazette Médicale de Paris.*

#### *On the Molecular Origin of the Tissues.*—By Dr. BENNETT.

Dr. Bennett read a memoir to the Physiological Society of Edinburgh, the object of which was to prove not only that cells were developed from nuclei, as had previously been ascertained, but likewise that these nuclei themselves originated in smaller bodies, viz,—molecules; and that these were the origin of the tissues. He also endeavoured to indicate the laws which governed their formation, arrangement, and subsequent development. The author showed, by a reference to the observations of Schleiden and Schwann, that the first step in the organization of all tissues was the coalescence of molecules and granules, into a cell-germ, which further derived a cell-wall from the agglomeration of other molecules. At any period in the progress of evolution the onward progress might be checked, when that structure became disintegrated in a manner inverse to its mode of formation. First the cell-wall became dissolved, then the nucleus, both of which were reduced to molecules, and then to an amorphous fluid. The author likewise mentioned another form of molecules, which he called secondary. These constitute peculiar secretions. The author next alluded to the origin and mode of formation, with the physiological and pathological importance of these three kinds of molecules, and described the investigations of Ascheron and Melsens. He concluded by pointing out the relation of a knowledge of this molecular formation to the study and treatment of disease. He stated, for instance, that in tubercular diseases the molecules of evolution were deficient, from absence of the fatty element in the chyle; and that in some other diseases, as in those of gouty, rheumatic, and scorbutic origin, a cure could only be effected by the introduction of such substances into the blood as favoured the production of molecules of transformation. The paper was very elaborate, and commanded a large share of attention.—*Monthly Journal of Medical Sciences.*

#### *On the Structure of the Middle Coat of Arteries.*—By Mr. DRUMMOND.

At one of the Edinburgh Physiological Society's meetings Mr. Drummond showed several specimens of the middle coat of the aorta in the ox, for the purpose of demonstrating that the fibres have a striated appearance, which might cause them to be mistaken for muscular

fibres, but that in reality they resemble the fibres of the ligamentous nuchæ, or the yellow elastic fibre. Under a high power they exhibit numerous cup-shaped depressions, arranged in linear series, to which the striated appearance is owing. He also showed that the structure described under the title of the fenestrated coat of Henle, as it occurs in the middle coat of the aorta of the ox, is formed by the amalgamation of the network of the yellow elastic fibres, the fenestræ or perforations being merely the remains of the areolæ between the fibres. The fibres which form the coat frequently have a striated appearance.—*Monthly Journal of Medical Science*, May, 1852.

#### PRACTICAL MEDICINE.

*Signs of the Scrofulous Habit.*—By Dr. TYLER SMITH.

The author contests the general, and we believe correct opinion, that the engorgement of the lymphatic glands, seen in feeble children, is a constitutional affection. He states that in his opinion the disorder is at first local only, and does not depend on any specific constitutional taint, and therefore that these enlarged glands are not to be received as evidence of a scrofulous habit. He, however, mentions one which he considers an unfailling sign of scrofula in young children. It consists of enlargement of the fingers, particularly to the first and second phalanges. The tumidity is chiefly seen over the metacarpal bones, the joint remaining of the natural size or nearly so. The swelling is soft, but not cedematous, and evidently consists of infiltration amongst the deeper structures of the finger. The surface is pale and shining, conveying the impression of semi-transparency when the tension is great. Unless in the advanced stages, there is no pain; the last phalanx is seldom affected, and the point of the finger appears by comparison smaller than usual. The seat of this curious change appears in the first instance to be in the periosteum, and sometimes enlargement of the finger begins a few weeks after birth. Whenever the puerile finger is morbidly enlarged in the manner described, the scrofulous constitution may be anticipated; and the author believes the tumid finger to be the earliest indication of this state presented by young children. When it is observed, the subjects of it require that every exertion should be used to remedy the general debility, of which it is the certain and unmistakable sign.—*Lancet*, May 15.

#### SURGERY.

*Charcoal Cushions for Deodorization.*

Mr. Howell makes the useful suggestion that the unpleasant and injurious effects of urinary and other discharges may be obviated by the use of charcoal bags, he says:—A. S—, a patient under my care in the Hackney Union Infirmary, has for some time “passed everything under her,” and thereby become a nuisance and cause of complaint to the other patients in the ward. Eleven days ago, I adopted the plan of placing beneath her a calico-bag two feet square, partially filled with Irish peat-charcoal, so as to form a sort of cushion and absorbing medium. It has had the happy effect—which

continues even now, without any necessity for changing the charcoal—of completely neutralizing all unpleasant odour; and if the bed becomes partially wet, all the offensive ingredients are absorbed and neutralized by the charcoal, which thus is a most simple means of remedying a great nuisance, and one that requires the most strict attention, at best, to prevent; and that attention is often difficult, and always expensive, to procure. In cases of incontinence of urine particularly, and indeed all attended with fœtid discharges, cancer, compound fractures, &c., this plan, or some modification of it, might be adopted with advantage.—*Lancet*.

*Fracture of the Anterior Inferior Spinous Process of the Ilium.*—By Dr. ASHEY, Virginia.

The subject of this rare accident was a negro lad, aged 19, who, while carrying a pail of water on his head, suddenly stepped into a deep hole. He immediately became disabled in the right leg, especially in the attempt to flex the thigh as in walking. There was no distortion, lengthening, or shortening of the limb, so that the author decided that there was no fracture, much against the conviction of the patient, who declared that he heard something give way.

However, on elevating the leg at right angles to the body, and letting it down suddenly, the author for the first time heard a crepitus, but the sound could not be produced by any other movements, for which reason he was doubtful as to the locality of the fracture. It could not be the cervix because no pain was referred to this joint; neither were there swelling or other symptoms of that accident. Further examination cleared up the difficulty, as the author was able to seize the fractured bone, which was evidently the anterior superior spinous process, separated from the ilium. The treatment was simple, and in four weeks the boy was walking about.—*Philadelphia Medical Examiner*.

### Correspondence.

#### O V A R I O T O M Y .

*To the Editor of the Provincial Medical and Surgical Journal.*

SIR,—In the *Provincial Medical and Surgical Journal* of October 30th, 1850, you published a report of a successful case of ovariectomy, performed by me at the Taunton and Somerset Hospital, Feb. 19th, 1850. The girl has called on me four times since, at intervals of about six months, and was at my house on Wednesday last, July 7th. She is in perfect health; catamenia regular. Thinking such cases should be watched for some years, and the state of health reported from time to time, I am induced to request the favour of your inserting this note in your next journal.

I am, Sir, yours obediently,

C. H. CORNISH. F.R.C.S.E.

Taunton, July 12, 1852.