cold. The right optic disc was very much redder than the left, but there was no oedema. There was evidently some intra-cranial lesion, but an exact diagnosis was not ventured upon, as it did not seem justified by the facts. A month after admission she took an epileptic fit, and before the House-surgeon, who was immediately summoned, could reach the ward, she died. On post-mortem examination this beautiful little tumour, which I now show you, was found beneath the tentorium on the left side. It is, you will see, quite round, and about the size of a greengage plum. It springs from the dura mater, and has, you will perceive, made a deep indentation in the left lateral lobe of the cerebellum. In addition to this tumour, a small haemorrhage, evidently of some weeks' duration, was found in the extra-ventricular portion of the left corpus striatum. The brain was otherwise normal.

The exact cause of death in this case was probably the sudden arrest of the functions of the "vital centres" (for the heart and respiration) in the medulla. In some other fatal cases of this description a profuse haemorrhage takes place into or around the tumour.1

(To be continued.)

Part Second.

REVIEWS.

The Utricular Glands of the Uterus, and the Glandular Organ of New Formation which is developed during Pregnancy in the Uterus of the Mammalia, including the Human Species, etc., etc., etc. With a Quarto Atlas of fifteen Plates. Translated from the Italian under the direction of Henry O. Marey, A.M., M.D. Boston: Houghton, Osgood, & Company: 1880.

The work before us contains the various papers hitherto published by Professor Ercolani on the anatomy of the placenta, and places before the English reader the peculiar but interesting opinions of that author in an exceedingly fascinating and agreeable form.

The fundamental ideas, which the author works out with much original research and argumentation, but also with no little repetition, may be formulated as two: 1st, That in all forms of placentation we have the co-aptation of two surfaces, the one of which, the maternal, is in its essence glandular, and secretes the

1 A tumour which is not situated in the motor area may theoretically produce convulsions of this description, either by causing reflex irritation of the convulsive centre in the medulla, or by producing profound alterations of the intra-cranial circulation.
nutritive fluid; and the other the foetal, which is absorbent, and, being always bathed in the nutritive fluid secreted by the maternal surface, constantly absorbs it for the benefit of the foetus. The simplest placenta is thus formed on the type of the simple juxtaposition of an absorbent villus with a secreting villus. The secreting surface, however, by its arrangements usually encloses the absorbent within its folds, so as to form follicles, which include and invest the absorbent villi. 2d, The secreting surface, like the absorbent surface, is not formed out of any pre-existent tissues, but is a structure of new formation, which in the different classes of animals bears a varying relation to the original mucous membrane. This new structure is formed of elements possessing only a temporary vitality, and ready to be expelled or absorbed at the termination of the period of utero-gestation. In the formation of this new structure, or, as Ercolani calls it, glandular organ, the utricular glands take no share. The author proceeds, by the process of comparative anatomy, to demonstrate the truth of his views, beginning with the simplest forms of diffused and multiple placenta, and passing on to the more complex single placenta in the dog, the quadrumana, and in man. The patience, care, and transparent honesty with which the author conducts this part of his work is beyond praise. It would lead us too far to go into details; but we may state that, in regard to the human placenta, Professor Ercolani holds that the new formation, at first distributed over the entire mucous membrane of the body of the uterus, becomes rapidly arrested in growth over the rest of the mucous membrane other than that of the serotinal area. There it continues to grow, and forms the maternal part of the placenta. This maternal part of the placenta or glandular organ, or, as it is usually called, the decidua serotina, in the woman, is formed, according to Ercolani, from the rapid proliferation of the cells of the submucous connective tissue. These cells, which on the uterine surface of the placenta are well known to anatomists as the large cells of the placenta, according to our author are the subjects of rapid transformation. By their vascularization they form the bloodvessels of the glandular organ; by becoming condensed they form into fibrous bands to attach it to the chorion and for the support of the villi. They also provide the bloodvessels with connective tissue investments, and, in truth, appear to make themselves generally useful where needed for any particular purpose, such as fixation, separation, or secretion.

The author traces in the human placenta development by successive stages that frequently correspond with the complete forms in other animals. The type of the absorbent villus is a loop of bloodvessels lying in a matrix of connective tissue, and covered with an epithelial lining of its own. In those placenta in which the connexion between the absorbent surface and the secreting surface is not specially close, this epithelial layer remains on the
villus. But where intimate adhesion takes place between the secreting villus and the convoluted surface of the glandular organ, as in the human placenta, then the epithelium lining the outer surface of the villus disappears, and the chorionic villus receives an epithelial investment from the surface of the glandular organ, which so closely adheres to the chorionic villus that it has been regarded hitherto by anatomists, except Turner and Ercolani, as a chorionic structure, and is known as the epithelial mantle of the villi of the chorion.

In the course of the development of the glandular organ in the human female (and also in the quadruman, apparently) there is produced an enormous ectasia of its bloodvessels, forming the enormous sinus system of the placenta, in which the venous and arterial blood of the mother commingle freely. As the glandular organ proceeds with its development its surface is thrown into folds so as to closely embrace and invest the foetal villi, which are contemporaneously increasing in number and branching freely. The surface of the glandular organ thus constantly forms sheaths or investments for the chorionic villi, and is never penetrated by them.

The placenta in woman becomes, therefore, ultimately to be composed, on the foetal side, of an enormous dendritic formation of villi, which project into the glandular organ and carry invaginations of it constantly before them, even when they reach its deeper or external layers, and, on the maternal side, of an enormous cellulo-vascular structure, in its deeper layers rich in large multinucleated cells, and towards its inner surface traversed by enormous sinuses formed by ectasia of its bloodvessels, and covered in from the foetal side by a delicate wall of the mother's blood-vascular system, on the inner or foetal aspect of which a single layer of epithelial secreting cells is placed. This compound wall follows in its direction the development of the individual foetal villi, so that its foldings are innumerable, and the foetal villi covered by its folds are found to project into and fill up the ectasic spaces formed in the placenta.

The two currents of blood, i.e., the foetal and maternal, are, however, always separated by the lining membrane of the mother's blood, by the epithelial layer of the glandular organ (epithelial mantle of the villus), and by the vascular loop of the absorbent villus.

The epithelial mantle of the villus, according to this view, is the secreting surface of the glandular organ, and separates nutritive elements from the mother's blood, which are taken up by the loop of capillary bloodvessels contained in the foetal villus and thus conveyed to the fetus.

The author further proceeds, by the method of comparative anatomy, to prove that in all mammals there is a unity of type in the formation of the placenta, and that the simple form of juxta-
position of a secreting villus or follicle lying in contact with an absorbent villus is maintained throughout the mammalia, making appropriate allowances for modification of details.

The first part of the work is illustrated by ten beautifully executed plates, and the theory of the unity of type in the placenta of mammals is illustrated by a series of four plates representing microscopic drawings, and a fifth composed of diagrams, in which are very plainly exhibited the author's idea of the actual formation of the various forms of placenta. The latter plate is extremely useful as a key to the peculiar views of the author in respect to placenta.

It will thus be noticed that the means by which nutrition is conveyed to the foetus from the mother is, according to Ercolani, never by a process of simple endosmose and exosmose, but is always a process of secretion and absorption. Indeed, he holds that practically the foetus is thus nourished during the whole of the pregnancy by a uterine milk secreted by the glandular organ of its mother's placenta, precisely as the foetus after birth is nourished by the milk secreted by the glandular organ of its mother's breast. In this respect he is teaching in the lines which were adopted by the late Professor Goodsir, and which are in a great measure followed, so far as we understand, by his successor. For we have listened to Goodsir demonstrating from his well-known diagram of an ultimate villus that the interchange of materials must be by a process of growth carried on through the agency of secreting cells.

In his views regarding the constant invagination or introflexion of the surface of the decidua serotina Ercolani differs from most German anatomists, who constantly teach that the chorionic villi penetrate the surface of the decidua serotina and the lining membrane of the mother's blood-vascular system, and ultimately come to float freely in the current of the mother's blood.

Again, in regard to the origin of the epithelial mantle he is at variance with most authors except Turner, as it is almost invariably regarded as of foetal origin. In denying any share to the utricular glands in the formation of the placenta, Ercolani is at variance with Sharpey and Weber, but at one with Turner and other recent observers, such as Leopold, Langhans, etc.

In looking upon the decidua serotina as an entirely new formation, and not a modification of the pre-existent mucous membrane, Professor Ercolani takes up a peculiar position. But we think he really makes far too much of this idea; for, after all, Ercolani's glandular organ is nothing more nor less than an enormous growth and transformation of the elements of that portion of the mucous membrane of the uterus known as the decidua serotina, and one cannot see the advantage of persisting in urging that it is an entirely new formation not formed out of pre-existent structures. Where could it be, even on the author's showing, were it not for the
submucous connective tissue of this area of the mucous membrane of the uterus?

It is curious to watch the return of Ercolani, in a modified manner, to the ideas entertained by Dr John Hunter regarding the origin of the decidual membranes. John Hunter regarded them as an exudation upon the normal mucous membrane, and Ercolani takes the view that they are new formations upon the mucous membrane. This view does not meet the approval of any other anatomical authority at the present day, so far as we know.

The book is well translated, is beautifully illustrated, and well deserves the attentive perusal of all those who are interested in such subjects.

_Surgery in the Pennsylvania Hospital._

This work is from the pens of Drs Morton and Hunt, surgeons to the Hospital, and is prepared by direction of the managers. It consists of a series of papers on surgical affections and operations, in which we have the opinions of the writers, drawn from their experience and from the recorded cases which have been treated during the past ten years. The book is well got up, and contains much valuable information in its 350 closely printed pages. The book is interesting as a record of cases and experience, and therefore is valuable mainly for reference. We naturally turn first to what is said on the treatment of wounds.

Antiseptic treatment, as we understand it here, is not practised, but all wounds are treated with rigid attention to cleanliness, dryness, and rest. Before an operation the parts are thoroughly cleaned, shaved, etc. After the operation close attention is paid to the arrest of haemorrhage and drainage of the wound. Then a light dressing is applied, and the wound disturbed as little as possible afterwards. Carbolic acid is used freely, in water or oil, with the dressings.

The results in regard to amputations have been, during the last four or five years, 108 amputations with 17 deaths, none being from septicæmia. The principal causes of death were, shock 5, tetanus 4, secondary haemorrhage 3.

The surgeons attribute their success to scrupulous cleanliness in the wards, dressings, etc. Many cases of great interest are reported, and illustrated by excellent woodcuts and photographs.

Practical surgeons will find much to interest them in the articles and cases recorded under the following heads:—Amputation, Transfusion of Blood, A Painful Affection of the Foot, Elephantiasis, Neuralgia and Nerve Sections, Calculus of the Bladder, Badly united Fractures, Phosphorus Necrosis, Tetanus (which is unusually common), etc.
There is an interesting paper on the "History of the Discovery of Asymmetry in the Lengths of the Lower Limbs."

There are many excellent woodcuts illustrating the apparatuses and methods of treatment in use in the Pennsylvania Hospital. The last, and not the least (of 93), shows Dr Morton's dressing-carriage for use in the Hospital, which would be a valuable addition to any hospital, especially where dressers and nurses are few. Dr Morton's great speciality in this dressing-carriage is a large supply of water, by which means a continuous stream is available for the washing of wounds.

We have much pleasure in recommending this book to all practical surgeons, and we hope that many works of a similar kind will appear, to give us the united experiences of surgeons of large hospitals.

Conspectus of Organic Materia Medica and Medical Botany, comprising the Vegetable and Animal Drugs. By L. E. Sayre, Ph.G.

Detroit: George S. Davis: 1880.

This "Conspectus," the author tells us, is the result of time and study devoted to the interests of students of materia medica. It is meant to direct special attention to drugs proper, their characteristics, and botanical and geographical origin. The author has many good intentions, but how far he has succeeded is quite another thing. The book has much to commend it, but, unfortunately, the author is not always perfectly accurate in his statements.

It begins with a "Chart of Botanic Materia Medica." The Natural Orders are given alphabetically. The "Chart" is arranged in ten parallel columns:—1. Natural Order; 2. Officinal name of drug; 3. Botanical name of plant which yields it; 4. Common name of the plant; 5. Its habitat; 6. The part used; 7. Its constituents; 8. Its medicinal properties; 9. Its dose; and 10, Its officinal preparations. This chart has been very carefully prepared, and will be found of great use to the student.

The next part of the work is one of great interest, the "Geographical Grouping of Materia Medica." Had this chapter been carefully prepared, it would have formed a very interesting and useful part of the volume. It is very incomplete, and, what is worse, in several cases very inaccurate. For example, he speaks of calumba being obtained from the west coast of Africa.

There is an excellent chapter on "Structural Botany," but which is rather out of place in a work on materia medica. The chapter on the botanical arrangement of plants is very good so far as it goes; but it would have been a great improvement if he had added the officinal plants under each Natural Order.
The chapter on the "Characteristics, Constituents, and Adulterations of Organic Materia Medica" displays a considerable amount of research; but, unfortunately, the subdivisions are far from being logical, and in some cases roots and rhizomes are confounded, evidently due to defective botanical knowledge on the part of the author.

Notwithstanding these defects, the book contains much valuable information.

**Healthy Homes.** By Stanley Haynes, M.D., M.R.C.S., F.R.G.S. London: Baillière, Tyndall, & Cox. Pp. 48.

**Dwelling Houses; their Sanitary Construction and Arrangements.** By W. H. Corfield, M.A., M.D. Oxon., F.R.C.P. Lond., Professor of Hygiene and Public Health at University College, London. H. K. Lewis. Pp. 112.

**Drainage for Health, or Easy Lessons in Sanitary Science.** By Joseph Wilson, M.D., Medical Director U.S. Navy. Philadelphia: Presley Blakiston. Pp. 68; illustrated.

**Report on the Sanitary Condition of Birkenhead for 1879.** By Francis Vacher, Medical Officer of Health.

Just now there is a rage for giving bits of sanitary science, more or less correctly, to the public in popular form, and doubtless some good is effected by constant reiteration.

Dr Haynes' **Healthy Homes**, if commonplace, is readable, and deals with such subjects as ventilation, drainage, food, clothing, etc. We can readily believe that as a lecture it was useful, but it does not follow that the author acted wisely in listening to "the repeated requests to publish it."

Dr Corfield's little book contains the Cantor lectures delivered before the Society of Arts, and, as might be expected from such an authority, is well arranged, correct, and thoroughly practical. It must, however, be confessed, that there is nothing new either in matter or mode of treatment, and that the style is more suitable for the lecture-room than for print. The lectures were illustrated by apparatus from the Parkes Museum of Hygiene, and in considerable part are explanatory of these specimens.

Dr Wilson's **Easy Lessons** are easy in the sense of being easy and amusing reading. "It is supposed that any gentleman may conveniently read it in leisure moments." We advise him to skip the long dialogues and quotations from Victor Hugo, etc., and commend the remainder as interesting and instructive so far as it goes.

Dr Vacher's report is a sample of good routine work calling for no special remark. Respecting the Fever Hospital he writes, "Every year brings fresh proof of the estimation in which it is held by members of the medical profession, and of the good-will and confidence of those for whose benefit it was established."
Speech for the Deaf: Report of the Milan Congress on Education of the Deaf. 8vo, pp. 159. London: Allen & Co.

We hope that this volume will attract the attention of every member of the medical profession. The unanimity of the recent congress of experts on the question of teaching the deaf must convince all, whatever their previous bias, that systems of "signs" and "finger talking" must, for the future, be entirely set aside in favour of the "pure oral" or "German" system, which, dispensing absolutely with signs, teaches every pupil to read from the lips of his teacher, and speak as he speaks, not with hideous guttural noises, but in a voice indistinguishable from that of a hearing child. These views, now happily in the ascendant, have always had powerful advocates in the medical profession, and we congratulate our brethren who have long and earnestly pressed forward the subject that their perseverance has at length borne fruit. It will, however, still need the enlightened support of medical men to impress upon the parents of deaf children that they must not be brought up as a class apart; that dumbness is not a necessary consequence of deafness, but should in every case be prevented, unless blindness or imbecility co-exist with deafness. The volume before us contains, besides the report and resolutions of the Congress, papers sent by members of the Society for Training Teachers of the Deaf (Office, 298 Regent Street, London); one on the "Mental Development of the Deaf," another, peculiarly interesting to those advocating the systems, entitled, "My Experience of the Various Methods of Educating the Deaf-Born," in which the author, Miss Hull, describes how she found it necessary to give up "signs," the "combined system," "visible speech," and now rests in the "pure oral" system. The paper by Dr Symes Thompson on the "Health of Deaf-Mutes," shows that the development of the lungs and of the whole body is greatly improved by the oral method; while the concluding paper by Dr Buxton, who has devoted his life to the subject, brings out some valuable facts, census returns, etc., as to the causes of deafness.

Part Third.

MEETINGS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

SESSION LX.—MEETING IV.

Wednesday, 2d February 1881.—Professor Simpson in the Chair.

I. In Dr Watson's absence, Dr MacGillivray exhibited TWO PATHOLOGICAL SPECIMENS. The first was a compound cyst from a case of