

*List of New Books.*—Edinburgh Cabinet Library, Vols. XXIX, XXX, and XXXI, "Italy and the Italian Islands," by William Spalding, Esq. 3 vols. 12mo. 15s. cl.—Traditions in Lincolnshire, 1st series, "Boston in the Olden Time," by Roger Quaint, 8vo. 5s. cl.—Mudie's Winchester Arithmetic, 12mo. 4s. 6d. sheep.—Head's Bubbles from the Brunnen of Nassau, new edit. 18mo. 5s. cl.—Dibdin's (Charles) Popular Naval Songs, edited by his Son, f. 8vo. 5s. cl.—Jesse's Summer's Day at Windsor and Visit to Eton, f. 8vo. 5s. cl.—Oliver's History of Freemasonry from 1829 to 1841, 12mo. 4s. cl.—Oliver's History of the Initiation into Freemasonry, new edit. 8vo. 10s. 6d. cl.—Bulwer's (Sir E. L.) Dramatic Works, 1 vol. 8vo. 12s. cl.—Waldemar, translated from the Danish of Ingemann, by a Lady, 3 vols. royal 12mo. 31s. 6d. cl.—Taylor (W. B. S. Esq.) on the Fine Arts in Great Britain and Ireland, 2 vols. post 8vo. 21s. cl.—Ephinstone's (Hon. Mountstuart) History of India, "The Mahomedan and Hindoo Periods," 2 vols. 8vo. 30s. cl.—Faulkner's Designs for Mural Monuments, Tombs, and Tablets, 32 plates, 15s. cl.—Elkington on Draining, &c. 19 plates, 10s. 6d. cl.—Designs of Ornamental Gates, Lodges, &c. of the Royal Parks, 50 plates, imp. 4to. 48s. half-morocco.—Rules for the Management of a Locomotive Engine, by C. H. Gregory, Civil Engineer, 18mo. 1s. cl.—Duncan on the Culture of the Cucumber, 12mo. 5s. cl.—Oram's Examples on Arithmetic, Part I, Integers, 12mo. 1s. 6d. cl.—Oram's Master's Copy to ditto, 12mo. 3s. cl.—Descriptive Key to H.B., 8vo. 18s. cl.—Hawkins's English Silver Coins, 8vo. 21s. half-morocco.—Croly's (Rev. G.) Personal History of His late Majesty George the Fourth, 2 vols. post 8vo. 11s. cl.—Ideas and Reflections on Music, by His Royal Highness the Crown Prince of Hanover, royal 8vo. 2s. 6d. cl.—The Destiny of the Jews, Lectures delivered at Liverpool, 12mo. 9s. cl.—Biddulph's Plain Sermons, Vol. I. new edit. 12mo. 3s. cl.—Cornish's (Rev. H. K.) Book of Prayers, 18mo. 2s. cl.—Hildyard's (Rev. James) Five Sermons at Cambridge, in 1841, 8vo. 5s. bds.—Crosthaite (Rev. J. C.) on the Holy Communion, 18mo. 2s. 6d. cl.

## OUR WEEKLY GOSSIP.

Another portrait of Her Majesty is now in Thread-needle Street, about to be engraved for Mr. Moon; and, with one of Prince Albert for its companion, is well worth looking at. Setting aside its grace and sweetness as a resemblance, we know not a better specimen of contemporary portrait-painting. It will raise Mr. Partridge many degrees higher in public estimation. Her Majesty, the blue ribbon and a star or order or two excepted, is in the evening costume of a private lady: the rich effect of the black dress is, perhaps, too much broken up by the fan and the handkerchief, which, as objects, might have been made to tell better, we think, on the gilded table at her side. But the gracious and speaking smile on the countenance, will allow few to be as critical as is our disagreeable duty. Prince Albert's portrait is far more magnificent: in all the pomp of fur and lace which adorn a rich military uniform. Mr. Partridge, however, has so managed that these do not usurp the principal attention, which ought to be commanded by the face: this too is a faithful and agreeable likeness.

Dr. Berres, of Vienna, has presented to the Polytechnic Institution, specimens of his engravings from Daguerreotype plates, which have been placed in the gallery for public inspection. These were obligingly submitted to us for comparison with the early efforts which we received direct from Vienna; and we are glad to observe that there is evidence of progress, though slow, in developing the wonderful powers of these combined processes. We may also mention that the Patent Reflecting Apparatus, by which Photographic Likenesses are taken, under a bright sky, in a few seconds, will be opened to the public next week at the same Institution; and we shall take this opportunity to acknowledge and commend the ever active zeal and enterprize of the Managers.

A statement in a letter from Constantinople affords a new proof that the cause of moral progress and human happiness is steadily advancing in that ancient stronghold of prejudice, under the enlightened auspices of the youthful Sultan. A firman has been issued, abolishing slave-hunts, to the great surprise of the faithful; and substituting for the class of eunuchs, whom it suppresses, old and faithful servants, as the guardians of the harem.—Through another channel we are informed that the first decoration ever bestowed by an Ottoman sovereign on an artist, has just been granted to the composer Donnizetti, to whom the Sultan Abdul-Medjid has transmitted, through his brother, at present in that capital, the insignia, in brilliants, of Nitscham-Ifthar.

The following titles have been gleaned from the French papers, as works lately or about to be forthwith published. Under the editorship of M. de Slane, 'The History of the Arabs and Berbers,' from the MS. of

Ibn Khaldun, with a French translation—'Idées Italiennes sur quelques Tableaux Célèbres,' by M. Constantin, eminent for his copies on porcelain of 'The Transfiguration,' and other of the works of Raphael—'Histoire de l'Esprit Public en France, depuis 1789; des Causes de son Altération et de sa Décadence'—Philosophie Politique, ou, de l'Ordre Moral dans les Sociétés Humaines, by Evariste Bavoux, preceded by a letter from M. Odillon Barrot—a series of the varied and picturesque Provincial Costumes of France (coloured lithographs), under the title of 'Les Français: Costumes des Principales Provinces de la France'—'Histoire Générale de la Révolution, de l'Empire, de la Restauration, de la Monarchie de 1830'—'La France avant la Révolution, son état politique et social en 1787, à l'Ouverture de l'Assemblée des Notables, et son histoire depuis cet époque, jusqu'aux États Généraux,' by M. Raudot—'Études sur les Réformateurs Contemporains, ou Socialistes Modernes, St. Simon, Robert Owen, and Ch. Fourier,' by M. Louis Reybad—'De la Misère des Classes Laborieuses, en France et en Angleterre,' by Eugène Buret; this work last year obtained from the Academy the prize founded by M. Felix Beaujour, and was, in its now extended form, the subject of a recent report, highly commendatory, to the Academy of Moral and Political Sciences, by M. Villermé—'La Rhétorique de Philodème,' text and translation, with a commentary, after the Papyrus of Herculaneum, lithographed at Oxford—a poetical Romance, entitled 'Olér,' spoken of as singular, in its attempt to introduce, for the first time, into French serious literature, that union of prose and verse, which, in Mr. Moore's hands, succeeded so well with 'Lalla Rookh'—'Les Français pour la première fois dans l'Histoire de France,' by M. Amans Alexis Montiel, the author of the 'Histoire des Français des divers États'—'Tableau Comparatif et Historique des Religions anciennes et modernes, des Principales Sectes Religieuses, et des Écoles Philosophiques,' by M. Boutruche—'L'Association des Douanes Allemandes, son Passé, son Avenir,' by MM. de la Nourais and Bères—and 'Allen Cameron,' an unpublished work by Sir Walter Scott!

The event of the week in Paris, connected with art, is the opening of the Salon, for the annual Exhibition, on Monday last.

The programme of the fifth concert of the Conservatoire in Paris, was made up of Beethoven's *Sinfonia Pastorale*, a scene from Sacchini's 'Cedipe à Colone,' the overture to 'Euryanthe,' one of Beethoven's grand *scenas*, and a bassoon fantasia. We confess the schemes of these far-famed entertainments appear to us unwisely *circular* in their scope and selection: but every day anew convinces us of the difficulties of administrating for concerts of this high class. At the Opéra Comique our pretty countrywoman, Madame Thillon, seems to have made a *furor* in the new opera 'Les Diamants de la Couronne.' M. Scribe to have out-scribed himself in the effective improbability of its book, and M. Auber to have produced his usual proportion of *morceaux*, which put all Paris in motion. A new bass singer or two have been tried at L'Académie Royale, to replace MM. Derivis and Alizard:—the latter is a loss. They are also about to perform there 'Der Freischütz' with connecting recitatives, written by M. Berlioz, and, very soon, a new opera of smaller pretensions, by M. Ambroise Thomas, a composer so clever that we wish he may be encouraged by success, to attempt a work on the grand scale demanded by that magnificent theatre. Meanwhile, M. Liszt has been finding all but a second Hungary in Belgium, so brilliant have been his triumphs there. The Belgians, according to M. Fétis (who belongs to the country) are generally slow to move, though richly endowed with an artistic organization: witness the number of creative and executive artists they have sent out: but they have entirely given themselves over to the Paganini of the piano, with an enthusiasm unheard of since Catalani's days. The Liegeois are organizing a fête in the month of September, for the inauguration of Grétry's statue, at which Liszt has promised to play. It is enough to make us promise to "be there to see."

As we last week declared our intention of watching the results of Mr. Yearsley's operations for the cure of impediments in speech, that gentleman, in the most liberal spirit, sent us a general invitation to

be present. A second attendance, however, has only confirmed our opinion, and verified our exceptional conjecture. Among the half-dozen patients there was not a single instance of cure, but several of relief. One patient obtained the *copia fandi* to a very considerable degree; one other obtained none whatever. This appears to show that the presumed panacea is, in truth, a very limited specific; and that a wise application of it would confine itself to peculiar cases where the uvula and tonsils are evidently malformed or mal-posed. Nature has not given us these organs as mere superfluities or fringes of the throat, to be snipt off at pleasure, but for wise and useful purposes; therefore a judicious surgeon, or, rather, judicious patient, will reflect before he casts them away. Taking for granted amelioration in particular cases as a fact, the safe, the philosophic, the Baconian method of process to gain a step higher towards generalization were, we submit, to consider that assumed fact under all its aspects: are uvula and tonsils the original cause of the stammer, or only organs affected by the action of said cause? and are these organs, if the original cause, the sole cause, or only a cause co-operative? This, we conceive, were somewhat like the way in which a less enthusiastic and prepossessed operator than Mr. Yearsley would seek to establish a solid scientific invention on a sure basis, instead of setting scissors to work, hair-dresser fashion, upon every customer who sat down before him, as if the operation had been already proven a "universal restorative." If uvula and tonsils be only affected by the remote, original cause, their excision, in many cases, can do no possible service; no more than to cut off a man's inflamed toe will cure or relieve him of the gout. Again, if they be a cause, but only a part cause, collateral remedies should be sought for. We are bound, however, to say that there is no apparent wilful delusion practised by Mr. Yearsley, either on himself or others; he seems convinced that he has made a most important discovery, which is the readiest means to convince his audience when even a slight success attends his experiments. We made it our business to visit this week the two patients mentioned as operated on in our last number; as yet neither of them exhibits any signs of cure, but both are, to some small extent, relieved.

## BRITISH INSTITUTION, PALL MALL.

The Gallery for the EXHIBITION and SALE of the Works of BRITISH ARTISTS is OPEN DAILY, from Ten in the Morning till Five in the Evening. Admission, 1s.; Catalogue, 1s. WILLIAM BARNARD, Keeper.

EXHIBITION of the SOCIETY of BRITISH ARTISTS, SUFFOLK-STREET, PALL MALL EAST, IS NOW OPEN for the Season.—Admission, 1s.; Catalogues, 1s. By order, E. HASSELL, Sec. Subscription to the Conversazioni, 11. 1s.

NOW ON VIEW, at the ITALIAN and FLEMISH GALLERY, 49, PALL MALL, a noble Allegorical Picture by RUBENS, THE EVILS OF WAR. Also a few fine Works by Claude, Rembrandt, Guido, Correggio, Andrea del Sarto, &c.—Admission 1s. Open from Ten till Five o'clock.

BURFORD'S PANORAMA of the BOMBARDMENT of ST. JEAN D'ACRE, Leicester-square, JUST OPENED, with the Explosion of the Magazine, the distant views of Mounts Carmel and Richard Cœur de Lion. Also now Open, a splendid View of DAMASCUS: comprising the Grand Cemetery, Mosques, &c., and the distant view of the Libanus, Desert, &c., embodying a district of country of vast extent.—Admittance to each view, 1s.; Books, 6d. each.—N.B. The circles are warmed for the season.

Under the Patronage of HER MAJESTY and PRINCE ALBERT.—THE ROYAL GALLERY of PRACTICAL SCIENCE, ADELPHI-STREET, WEST STRAND.—Mr. C. Payne's Patent Process of Salting Provisions is among the numerous novelties lately added to this Exhibition; the splendid illustrations by means of the Hydro-oxygen Light are extended and improved; Electricity and Magnetism, Steam-Gun, &c., &c.—Admission, 1s. Children half price. Open from half-past Ten till Five daily.

## SCIENTIFIC AND LITERARY

## GEOLOGICAL SOCIETY.

Jan. 20.—Rev. Dr. Buckland, President, in the chair.—Three communications were read:—

1. 'On the Teeth of species of Labyrinthodon (Mastodonsaurus and Phytosaurus? of Jaeger), from the German Keuper and the Sandstone of Warwick and Leamington,' by R. Owen, Esq.—The true position of the Warwick sandstone, with reference to the Keuper and Bunter Sandstein of the Germans, being considered by some geologists as not definitely determined, Mr. Owen, in his preliminary remarks, expresses a hope that the discovering at Warwick and Leamington of reptilian remains generically agreeing with those found in the Keuper of Germany, may afford some assistance in deciding the question. In



his prefatory observations, Mr. Owen also shows, that the genus *Phytosaurus* was established on the casts of the sockets of teeth of *Mastodonsaurus*; and that the latter generic name ought not to be retained because it conveys the idea of a mammiloid form of tooth, whereas all the teeth of the genus so designated are originally and for the greater part permanently cuspidate; and because the second element of the word *saurus* implies a false affinity, the remains belonging not to the Saurian, but to the Batrachian order of reptiles. He therefore proposes to substitute the generic appellation *Labyrinthodon*, founded on the structure of the teeth. The only portions of the Batrachian hitherto described from the German Keuper consist of teeth, a fragment of a skull, and a few imperfect vertebrae; and the only specimens from the Warwick sandstone determined by Mr. Owen at the time the memoir was written, consisted of teeth. In this paper he confines his attention, therefore, to a comparison of the dental structure of the continental and English remains. The teeth of the *Labyrinthodon Jaegeri* (*Mastodonsaurus Jaegeri*, Von Meyer) of the Keuper, are of a simple conical form, with numerous longitudinal striæ; and the teeth from the Warwick sandstone, transmitted by Dr. Lloyd, for Mr. Owen's examination, closely resemble them. These external characters being insufficient to prove even generic identity, the author had sections made, in various directions, of portions of the teeth of the German fossil forwarded to him by Dr. Jaeger, and of the English reptile, and they exhibited such decided characters, that he was enabled not merely to separate them from all known reptiles, but to establish a generic community of character in the continental and British remains. It was not, however, until he had studied these sections attentively, in comparison with the teeth of true Saurians, Batrachians, and other animals, that he comprehended the principle of the singular cerebriform convolutions which pervade the dental structure of this remarkable reptile. The nearest resemblance to it, is exhibited in the base of the tooth of the *Ichthyosaurus*. In this fang vertical folds of the external layer of cement are inflected inwards, at pretty regular intervals, around the circumference of the tooth towards the centre, to a distance about equal to the breadth of the interspaces of the inflected folds; and the interspaces are occupied by corresponding processes of the dentine which radiate from the central mass of that substance. The thickness of this interblended cement and dentine, surrounding the pulp cavity, is about one-eighth of the diameter of the tooth. The plan and principle of the structure of the tooth of the *Labyrinthodon* are the same, but much more highly complicated. The following details were exhibited in a transverse section taken about the middle third part of a fragment of a tooth of *L. Jaegeri*; the entire length of the tooth having been probably  $3\frac{1}{2}$  inches, and the breadth at the base  $1\frac{1}{2}$  inches. The converging vertical folds of the external cement extend close to the centre of the tooth, and present, instead of straight simple lamellæ, a series of irregular folds, increasing in complexity as they proceed inwards, and resembling the labyrinthine anfractuosités of the surface of the brain: each of these converging folds is slightly dilated at its termination, close to the pulp cavity. Notwithstanding this singular arrangement, the ordinary laws of dental structure are strictly adhered to, every space intercepted by a convolution of the folds of the cement being occupied by processes of dentine. With respect to the general external characters of the tooth of the *Labyrinthodon*, Mr. Owen states, that the longitudinal grooves which correspond to the inflected folds of the cement, extend from the base upwards, to about three-fourths of the height of the tooth, decreasing in number as the tooth diminishes in diameter, and disappearing about half an inch from the summit of the tooth. Each fold of cement penetrates less deeply, as the groove approaches its termination; and the structure of the upper part of the tooth, Mr. Owen conceives, may be more simple than that of the lower, but he has not yet been able to extend his observations to it. The dentine consists of a slender, central, conical column, hollow for a certain distance from its base, and radiating outwards from its circumference a series of vertical plates, which divide into two, once or twice before they terminate at the periphery of

the tooth. Each of these diverging and dichotomizing vertical plates gives off, throughout its course, narrower vertical plates, nearly at right angles to the main plate, in relation to which they are generally opposite, but sometimes alternate. Many of the secondary plates, given off near the centre of the tooth, also divide into two before they terminate. They partake of all the undulations which characterize the inflected folds of the cement. About the upper third of the tooth the central pulp cavity is reduced to a line; but fissures radiate from it, corresponding in number with the radiating plates of the dentine; and one of them is continued along the middle of each plate, dividing where it divides, and penetrating each bifurcation and process. The main fissures extend to within a line, or half a line, of the periphery of the tooth, their terminations, as well as those of the fissures of the lateral processes, dilating suddenly into sub-circular, oval or pyriform spaces. These spaces are centres of radiation of fine calcigerous tubes, which with their uniting clear substance constitute the dentine. The number of these tubes, also centres of minor ramifications, defies all calculation. Their diameter is the  $\frac{7}{1000}$  of an inch, and the interspaces are equal to seven diameters. A tooth from the sandstone of Coton End quarry, lent to the author by Dr. Lloyd, nearly resembles in size and form the smaller teeth of *Labyrinthodon*, figured by Jaeger; and all the peculiarities of the labyrinthine structure of the Keuper tooth are so clearly exhibited in it, that Mr. Owen considers the differences to be only specific. At the upper part of the tooth is a layer of firm dentine, separated from the rest by a thin stratum of fine calligerous cells, and, until very recently, considered by the author to be enamel. The inflected folds are continued for a greater relative distance before the lateral inflections commence, than in the German species; and the anfractuosités are fewer in number; some of the folds are also reflected backwards, from near the central pulp cavity, for a short distance before they terminate. The modifications of the complex diverging plates of the dentine, are shown hardly to exceed those of a specific character, while the composition of the dentine is stated to be the same as in the *Labyrinthodon Jaegeri*. A transverse section through the middle of a smaller and relatively shorter tooth, from the Warwick sandstone, exhibited more complicated anfractuosités, with numerous secondary and tertiary foldings, and the external layer of cement was relatively thicker than in the *Lab. Jaegeri*. The generic identity of the reptiles indicated by the teeth from the Warwick sandstones, with the *mastodonsaurus* of the German Keuper, Mr. Owen considers fully established by the accordance of their dental structure; and in conclusion, he says, if geology has, in this instance, derived any essential aid from minute anatomy, in no other has the comparative anatomist been more deeply indebted to geology, for not the slightest conception could have been deduced from an investigation, however extensive, of the teeth of existing animals, of the singular and complicated modifications of dental structure revealed by these fossils.

2. 'Observations relative to the Elevation of the Shores of Waterford Haven, during the Human period, and on the Geological Structure of the District,' by T. Austin, Esq.—From the Rock of Passage to Woodstown, a distance of three miles, the western side of Waterford Haven presents a nearly continuous cliff of clay and gravel, formed principally of the detritus of old red sandstone, and inclosing a bed, from one to four feet thick, of *Cardium edule*, with other existing species of marine testacea, and a few land shells. In this bed, immediately north of Newtown Head, the greater portion of a human skeleton was found, about five feet below the surface of the ground, and the same distance above high-water mark. The valves of *Cardium edule* were equally as numerous there as in other parts of the bed, and many of them were lodged in the cavity of the skull. From a careful examination of the conditions under which the skeleton was found, more especially as none of the shells were scattered through the superincumbent loam, Mr. Austin is convinced the ground had never been disturbed for sepulture: he is consequently of opinion, that the body was washed into the estuary during the accumulation of the shelly bed; that it was arrested in its present position by a curva-

ture in the level, due to a projecting mass of trap; and that an elevation of the country has taken place since the commencement of the human period. Patches of the shelly bed occur as far eastward as eight miles from the shore; and on the eastern side of the Haven a similar deposit exists. Mr. Austin, therefore, also infers that the extent of the Haven was once much greater than it is at present. The author then gives a general description of the geological structure of the districts immediately adjacent to the shores of Waterford Haven. The formations of which they consist are mountain limestone, old red sandstone, schistose strata, considered to belong to the Silurian system, and trap rocks. The mountain limestone occurs only at Hook Point, the southernmost headland of the Wexford side of the Haven. The upper, or sandstone, beds of the old red system, succeed to it conformably, and contain obscure vegetable remains, also thin seams and nodules of anthracite, and occasionally small masses of black copper ore. These beds are underlaid by marls, sandstones, and conglomerates, composing the mass of the formation, and about 1,600 feet thick. The formation constitutes also Broom Hill, and the opposite points called Creden Head and Knockavelish Head, likewise a little patch north of the latter; and near the upper extremity of the Haven, the headlands adjacent to Arthurstown, and at Passage. At all the first-mentioned localities the strata dip towards the south, but at the two latter towards the north. The schistose strata occur between Hook Point and Broom Hill, and they constitute the whole of the country on both sides of the Haven, from Broom Hill and Knockavelish Head, to the old red promontory near Arthurstown and Passage, with the exception of some masses of trap near Duncannon Fort and Newtown Head. The strata are, for the greater part, variously contorted, in consequence, Mr. Austin believes, of great lateral pressure; and they are brought at several points into unconformable juxtaposition with the old red sandstone. Near Arthurstown the dip is towards the north, at an angle of  $70^\circ$ , and the overlying old red sandstone is inclined in the same direction, but at an angle not exceeding  $30^\circ$ . At Duncannon Fort an impure limestone, containing trilobites, corals, and testacea, is associated with the slates; and a little north of Newtown Head, on the opposite side of the Haven, some highly inclined fossiliferous strata are visible at ebb-tide. It is on account of the resemblance of the organic remains obtained at these localities, with species figured in Mr. Murchison's work, that the author places the schistose strata in the Silurian system. The trap rocks constitute the point on which stands Duncannon Fort; they also form Newtown Head, and Mr. Austin is of opinion, that the same masses range westward to Tramore, and Great Newtown Head, where they are lost in the St. George's Channel. Wherever the trap appears on the surface the beds are tilted.

3. A paper by Mr. Lyell, 'On the Freshwater Fishes of Mundesley,' as determined by M. Agassiz.—In a former memoir by Mr. Lyell, 'On the Boulder Formation and associated Freshwater Deposits of Eastern Norfolk,' the scales and teeth of fishes procured from the Mundesley fluviatile beds were stated, on the authority of Mr. Yarrell and the Rev. L. Jenyns, to belong to the *Esox lucius*, to a trout, to a carp, probably the *Cyprinus carpio*, and to a distinct species of Perca. M. Agassiz, during his late visit to England, also examined the same collection of specimens, with some additions, and fully confirmed Mr. Jenyns's decision with respect to the distinctness of the perch; but he is of opinion that the pike is not the *Esox lucius*, that the carp is a specimen of *Leuciscus*, and that the trout is not truly a trout, though belonging to the same great family. It is therefore evident, Mr. Lyell observes, that these remains must be assigned to undescribed freshwater fishes; but that they form part of an ichthyological Fauna more modern and more nearly resembling the recent than any other with which M. Agassiz is acquainted in a fossil state. Mr. Lyell found similar remains at Runton, near Cromer, where they are associated, as at Mundesley, with freshwater testacea, all of existing species, including the *Paludina minuta*, formerly supposed to be extinct, but lately proved, by Mr. Morris, to be identical with

Original from See Athenæum, No. 639, p. 80.