

ALPHABETICAL INDEX

TO THE

PROCEEDINGS OF THE GEOLOGICAL SOCIETY.

[The fossils referred to are described, and those of which the names are printed in italics are also figured.]

- Addo Drift, 503.
Africa, South, Cretaceous rocks of, 60.
—, —, Mr. C. L. Griesbach on the geology of Natal, in, 53.
—, —, Mr. G. W. Stow on the geology of, 497, 523; Jurassic formations of, 497; Posttertiary formations of, 515; Dicotyledon-formation of, 523; climatal changes and glacial denudation of, 534.
—, —, remarks on some specimens from, by Dr. George Grey, 49.
Age of the Nubian Sandstone, 404.
Agnostus cambrensis, 400.
Albany, Lower, section through, 537.
—, —, specimens from the Carboniferous rocks of, 50.
Aldborough, section in ballast-pit at, 335; fossils from the Red Crag near, 332; fossils from Thorpe-pit near, 343.
Aldeby, section in pit at, 454; fossils from, 455.
Alexandria, section from, to the Orange River, 537.
Allophane, Mr. W. D. Herman on, and an allied mineral found at Northampton, 234.
Am-Ende-der-Welt, 314.
Ammonites Kayei, 63.
— *rembda*, 63.
— *umbolazi*, 63.
Amsterdam Flats, section through, 515.
Analysis of allophane and an allied mineral, 236; of harmotome, 374.
Anamesite veins in Eigg, 299.
Anamesites of the island of Eigg, 290.
Andrie's Neck, sketch from, 547.
- Anisoceras rugatum*, 63.
Anniversary Address of the President, xxx-lxxv. See also Prestwich, Jos., Esq.
Antequera, plain of, 111.
Arca capensis, 66.
Asia, Eastern, and North China, Mr. T. W. Kingsmill on the probable origin of deposits of "Loess" in, 376.
Auchindoun Castle, section through, 102.
Bacton, section in cliff near, 464.
Banffshire, Mr. T. F. Jamieson on the older metamorphic rocks and granite of, 101.
Barnes series of the Punfield formation, 218.
Basalt plateau of the island of Eigg, 290.
Basalt veins in Eigg, 299.
Bath district, Mr. W. Stephen Mitchell on the denudation of the Oolites of the, with a theory on the denudation of Oolites generally, 228.
Bawdsey Cliff, sections in, 327, 334; fossils from the Red Crag of, 337.
Beaches, raised, in South Africa, 517.
Bear Island, Prof. O. Heer on the Carboniferous flora of, 1.
Beer Head, diagram of upper part of cliff west of, 98.
Beinn Bhuidh, section through, 287.
Ben Aigan, section through, 102.
Bethelsdorp saltpan, 506.
Bideann Boidheach, Eigg, section of the cliff of, 308.

INDEX TO THE PROCEEDINGS.

- Bishopford Bridge, Norwich, section in pit at, 469.
- Bluff, Port Natal, section from, to the Rooy-kop, 59.
- Boharm, section through, 102.
- "Bone-bed," Dr. F. Royston Fairbank on the discovery of a, in the lowest of the "Lynton Grey-Beds," North Devon (title only), 33.
- Bongolo valley, 541.
- Bonney, Rev. T. G., on the formation of "cirques," and their bearing upon theories attributing the excavation of Alpine valleys mainly to the action of glaciers, 312.
- Bosses, intrusive, in the island of Eigg, 294.
- Bottra's hill, section through, 537.
- Boulders of greenstone &c. imbedded in clay and grit, Karoo formation, Natal, 58.
- Bramerton, fossils from, 457.
- Branscombe Mouth, section of part of the top of the cliff west of, 99.
- Breccias of the island of Eigg, 293.
- Brewsterite, 373.
- Britain, Mr. W. B. Dawkins on the discovery of the Glutton in, 406.
- British Guiana, Mr. J. G. Sawkins on the geology of, 419.
- British Islands, Prof. A. Geikie on the Tertiary volcanic rocks of the, 279.
- Brixton Bay, Punfield formation in, 218.
- Brodie, Rev. P. B., on the "passage-beds" in the neighbourhood of Woolhope, Herefordshire, and on the discovery of a new species of *Eurypterus* and some new land-plants in them, 256.
- Brooke, Isle of Wight, Mr. J. W. Hulke on a large reptilian skull from, probably Dinosaurian, and referable to the genus *Iguanodon*, 199.
- Broom hill, near Orford, section of a pit on, 122; fossils from the Coraline Crag of, 123.
- Bryozoa of the Coralline Crag of Suffolk, 128.
- Buffel-Doorns flat, 541; section showing outlets from, 542; section showing the successive outlets on the S. and S.E. sides of, 542.
- Bulchamp, section in pit near, 344; fossils from, 344.
- Burghersdorp, section through, 537.
- Butley Abbey, section in a pit near, 329; fossils from the Red Crag near, 330.
- Calamites*, *Sigillaria*, and *Calamodendron*, Dr. J. W. Dawson on the structure and affinities of, 147.
- Calamites*, structure of, 158.
- Calamodendron*, *Sigillaria*, and *Calamites*, Dr. J. W. Dawson on the structure and affinities of, 147.
- Calamodendron*, structure of, 155.
- Calcite, 373, 374.
- Cambrian rocks, Lower, of St. David's promontory, table of the, 391; comparison of the fossils of, with those of other parts of the world, 391-398; table of fossils from, 396.
- Canuku mountains, section through, 421.
- Cape of Good Hope, Mr. G. Gilfillan on the diamond-districts of the, 72.
- Carboniferous flora of Bear Island, Prof. O. Heer on the, 1.
- Carboniferous rocks of Lower Albany, specimens from the, 50.
- Cardium denticulatum*, 67.
- Carenacru, section through, 421.
- Carpolites umbonatus*, 444, 446.
- Carruthers, William, Esq., on some supposed vegetable fossils, 443.
- Caryophyllia cylindracea*, Prof. Duncan on the persistence of, in the Coral fauna of the deep sea, 434.
- Caulopterus antiqua*, 271.
- *Lockwoodi*, 270.
- (*Protopterus*) *peregrina*, 272.
- Cephalopoda of South-African and Indian Cretaceous rocks, 64.
- Cerithium* (*Fibula*?) *detectum*, 64.
- *kafrarium*, 64.
- Chalk of the southern part of Dorset and Devon, Mr. W. Whitaker on the, 93.
- of the cliffs from Seaford to Eastbourne, Sussex, Mr. W. Whitaker on the (title only), 92.
- Chemnitzia undosa*, 65.
- Chillesford, sections at, 336, 337; fossils from, 331, 337.
- Chillesford series, 336-339, 343-345.
- Chimacroid fish, Sir P. G. Egerton on a new, from the Lias of Lyme Regis, 275.
- China, North, and Eastern Asia, Mr. T. W. Kingsmill on the probable origin of deposits of "Loess" in, 376.
- , —, evidence of late depression in, 378.

INDEX TO THE PROCEEDINGS.

- Chlorite-slate formation of Natal, 55.
 Cirques, Rev. T. G. Bonney on the formation of, and their bearing upon theories attributing the excavation of Alpine valleys mainly to the action of glaciers, 312.
 Cirripedes of the Coralline Crag of Suffolk, 130.
 Clay-slate formation of Natal, 55.
 Clegyr valley, section across, 388.
 Climatal changes of South Africa, Mr. G. W. Stow on the, 534.
 Coal-bearing strata of Eastern Spain, 224.
 Coal from the Stormberg range, 51.
 — in Natal, 70.
 Coltishall, section in chalk-pit at, 459; fossils from, 459.
 Compton Bay, Punfield formation in, 219.
 Conewyatchi river, section across, 421.
Conocoryphe Lyellii, 399.
 — *solvensis*, 400.
 Continent, Southern, on the probable existence of a, 546.
 Contour-plan of exposures of strata on the Upper Zwart Kei, 527.
 Copper in Natal, 70.
 Coral, Prof. Duncan on a new species of, from the Red Crag of Waldingfield, 369.
 Coralline Crag of Suffolk, Mr. J. Prestwich on the, 116; fossils of the, 125, 137; general section of the, 121.
 Corals of the Coralline Crag of Suffolk, 131.
 Cotinga river, section across, 421.
 Cowleaze series of the Punfield formation, 218.
 Cradock, Cape Colony, specimens from, 49.
 Crag-beds of Suffolk and Norfolk, Mr. J. Prestwich on the structure of the, with some observations on their organic remains.—Part I. The Coralline Crag of Suffolk, 116.
 ———. Part II. The Red Crag of Essex and Suffolk, 325.
 ———. Part III. The Norwich Crag and Westleton beds, 452.
 Crag, Coralline, Mollusca from the, 494.
 —, —, of Suffolk, Mr. J. Prestwich on the, 116; fossils of the, 125, 137; general section of the, 121.
 Crag, Norwich, Mr. J. Prestwich on the, 452.
 Crag, Red, of Essex and Suffolk, 325.
 —, —, of Waldringfield, Prof. Duncan on a new species of Coral from the, 369.
 Cretaceous and Neocomian, unconformity of the, in the south of England, 221.
 Cretaceous, Neocomian, and Wealden of the south of England, relations of the Punfield formation to the, 221.
 Cretaceous rocks of South Africa, 60.
 Cretaceous series of South Africa and India compared, 68.
 Cretaceous, variation in character of the, from east to west, in the south of England, 221.
 Creux de Champs, 312.
 Creux du Vent, 313.
Crocodylus gaudensis, 30.
 Croda Malcora, 513.
 Crustacea of the Coralline Crag of Suffolk, 130.
 Crustaceans, Mr. H. Woodward on some new, from the Lower Eocene of Portsmouth, 90.
 Cumparuyama river, section across, 421.
 Cuyler Manor, section at, 498, 499.
 Cystoseirites nutans, 447.
 Dawkins, W. Boyd, Esq., on the discovery of the Glutton (*Gulo luscus*) in Britain, 406.
 Dawson, Dr. J. W., on new tree-ferns and other fossils from the Devonian, 269.
 —, —, on the structure and affinities of *Sigillaria*, *Calamites*, and *Calamodendron*, 147.
 Denudation, glacial, of South Africa, Mr. G. W. Stow on the, 534.
 — of the Oolites of the Bath district, Mr. W. Stephen Mitchell on the, with a theory on the denudation of Oolites generally, 228.
 Deveron, section from the Spey to the, 102.
 Devon, North, Dr. F. Royston Fairbank on the discovery of a "bone-bed" in the lowest of the Lynton grey-beds, (title only), 33.
 — and Dorset, Mr. W. Whitaker on the chalk of the southern part of, 93.
 Devonian, Dr. J. W. Dawson on new tree-ferns and other fossils from the, 269.
Diadema, 67.
 Diamond-districts of the Cape of

INDEX TO THE PROCEEDINGS.

- Good Hope, Mr. G. Gilfillan on the, 72.
- Dieppe, Mr. W. Whitaker on the cliff-sections of the Tertiary beds west of, 263.
- Dinosaurian skull, Mr. J. W. Hulke on a probable, from Brooke, Isle of Wight, 199.
- Dip of the saliferous beds of the Uitenhage formation, 511.
- Distribution, stratigraphical, of the British fossil Lamellibranchiata, Mr. J. L. Lobley on the, 411.
- Dolerites of the island of Eigg, 290.
- Dolerite veins in Eigg, 299.
- Donations to the library, viii, 34, 162, 357, 549; museum, vii.
- Donegal, Mr. A. H. Green on the geology of part of the county of, 449.
- Dordrecht, section at, 524; section through, 537.
- Dorset, Mr. J. W. Hulke on a fragment of a Teleosaurian snout from Kimmeridge Bay, 442.
- , Mr. J. W. Hulke on an *Ichthyosaurus* from Kimmeridge Bay, 440.
- and Devon, Mr. W. Whitaker on the chalk of the southern part of, 93.
- Drayson, Lieut.-Col., on the probable cause, date, and duration of the Glacial epoch of geology, 232.
- Dunan Thalassgair, section through, 287.
- Duncan, Prof. P. Martin on a new species of coral from the Red Crag of Waldringfield, 369.
- , on the persistence of *Caryophyllia cylindracea*, Reuss, sp., a Cretaceous species of coral in the coral fauna of the deep sea, 434.
- Durban, section through, 59.
- Durdle Cove, section of chalk with flints in eastern side of, 95.
- Dykes in the island of Eigg, 298.
- Eastbourne, Sussex, Mr. W. Whitaker on the chalk of the cliffs from Seaford to (title only), 92.
- Easton Bavent cliff, section near north end of, 462; section of cliff at, 345; fossils from the crag and Chillesford clay at, 345.
- Echinodermata of the Coralline Crag of Suffolk, 131.
- Economic geology of Natal, 70.
- Egerton, Sir P. G., on a new Chimæroid fish from the Lias of Lyme Regis (*Ischyodus orthorhinus* ♂), 275.
- Eggs, fossil, 446.
- Eigg, geology of the island of, 285; map of, 286; section of, 287; Oolitic series of, 288; volcanic series of, 289; Scûr of, 303.
- Eland's Post, section through, 537; table of elevations from, to the banks of the Orange river, near Aliwal, 548.
- Elevations, table of, from Eland's Post to the banks of the Orange River, near Aliwal, 548.
- Engelberg, cirque near, 323.
- Entomostraca of the Coralline Crag of Suffolk, 130.
- Eurypterus Brodiei*, 262.
- Eurypterus*, Rev. P. B. Brodie on the discovery of a new species of, in the "passage-beds" in the neighbourhood of Woolhope, Herefordshire, 256.
- , Mr. H. Woodward on a new species of (*E. Brodiei*) from Perton, near Stoke Edith, Herefordshire, 261.
- Fairbank, Dr. F. Royston, on the discovery of a "bone-bed" in the lowest of the "Lynton Grey-beds," North Devon (title only), 33.
- Fauna of the Izhiluzabalungu deposits, 62.
- Felstone vein in Eigg, 299.
- Fer-à-Cheval, 312.
- Ferns, tree, Dr. J. W. Dawson on new, and other fossils from the Devonian, 269.
- Fish, Sir P. G. Egerton on a new Chimæroid, from the Lias of Lyme Regis, 275.
- Fish-remains of the Coralline Crag of Suffolk, 132.
- Flora, Carboniferous, of Bear Island, Prof. O. Heer on the, 1.
- Fluid-casts, 445.
- Foraminifera of the Coralline Crag of Suffolk, 131.
- Forest-bed of Norfolk, mammalian remains from the, 466; plants from the, 467.
- Forest-zones of the Dicynodon formation, 523.
- Fossils from South Africa, 49; from the Devonian, 269; from the Longmynd rocks of St. David's, 399; from the Lower Eocene of Portsmouth, 85, 90; from the Nubian sandstone, 405; from the Red Crag, 330, 331, 332, 337, 338, 339, 343, 344, 345, 346, 347, 351; of the Coralline Crag of Suffolk, 125, 137; of the saliferous beds of the Uiten-

INDEX TO THE PROCEEDINGS.

- hage formation, 511; reptilian, from Gozo, Mr. J. W. Hulke on, 29; South-African Cretaceous, 63.
- Fossils, Mr. W. Carruthers on some supposed vegetable, 443.
- Gedgrave, Low, fossils from the Coral-line Crag near, 124.
- Geikie, Prof. Archibald, on the Tertiary volcanic rocks of the British Islands (first paper), 279.
- Geography (physical) of Natal, 53.
- Geology, economic, of Natal, 70; of British Guiana, 419; of Donegal, 449; of St. David's promontory, 384; of the island of Eigg, 285, 309.
- of Natal, in South Africa, Mr. C. L. Griesbach on the, 53.
- of South Africa, Mr. G. W. Stow on the, 497, 523.
- of the neighbourhood of Malaga, D. M. d'Orueta on some points in the, 109.
- Gilfillan, G., Esq., on the diamond-districts of the Cape of Good Hope, 72.
- Glacial denudation of South Africa, Mr. G. W. Stow on the, 534.
- Glacial epoch of geology, Lieut.-Col. Drayson on the probable cause, date, and duration of the, 232.
- Glaciers, Rev. T. G. Bonney on the theory of the excavation of alpine valleys by, 312.
- Glenmarkie hill, section through, 102.
- Glutton, Mr. W. B. Dawkins, on the discovery of the, in Britain, 406.
- Gneiss, greenstone, and granite, boulders of, imbedded in clay and grit, Karoo formation, Natal, 58.
- Gneiss of Banffshire, 102; of Natal, 54.
- Gold in Natal, 70.
- Gomer, near Low Gedgrave, fossils from the Coralline Crag at, 124.
- Gozo, Mr. J. W. Hulke, on some reptilian fossils from, 29.
- Grahamstown, section through, 537.
- Granite, greenstone, and gneiss, boulders of, imbedded in clay and grit, Karoo formation, Natal, 58.
- Granite of Banffshire, Mr. T. F. Jamieson on the older metamorphic rocks, and, 101; origin of the, 105.
- of Natal, 54.
- Graphite in Natal, 70.
- Grassridge, section through, 515.
- Gravel-deposits of the Weald, 9; of Hampshire, 23.
- Green, A. H., Esq., on the geology of part of the county of Donegal, 449.
- Greenstone, granite, and gneiss, boulders of, imbedded in clay and grit, Karoo formation, Natal, 58.
- Grey, Dr. George, remarks on some specimens from South Africa, 49.
- Griesbach, C. L., Esq., on the geology of Natal, in South Africa, 53.
- Guiana, British, Mr. J. G. Sawkins on the geology of, 419.
- Guilielmites permianus, 446.
- Gulo luscus, 406.
- Hangklip, section of, 531; section through, 537.
- Harkness, Prof. R., and H. Hicks, Esq., on the ancient rocks of the St. David's promontory, South Wales, and their fossil contents, with descriptions of the new species by H. Hicks, Esq., 384.
- Harmotome, 373, 374.
- Hawkshaw, J. C., Esq., on the peat- and underlying beds observed in the construction of the Albert Dock, Hull, 237.
- Heer, Prof. O., on the Carboniferous flora of Bear Island, 1.
- Herefordshire, Rev. P. B. Brodie on the "passage-beds" in the neighbourhood of Woolhope, and on the discovery of a new species of *Eury-pteris* and some new land-plants in them, 256.
- Herman, W. Douglas, Esq., on allophane, and an allied mineral found at Northampton, 234.
- Hicks, Henry, Esq., and Prof. R. Harkness on the ancient rocks of the St. David's promontory, South Wales, and their fossil contents, with descriptions of the new species, by H. Hicks, Esq., 384.
- Hulke, J. W., Esq., note on a large reptilian skull from Brooke, Isle of Wight, probably Dinosaurian, and referable to the genus *Iguanodon*, 199.
- , on a fragment of a Teleosaurian snout from Kimmeridge Bay, Dorset, 442.
- , on an *Ichthyosaurus* (*I. cnethiodon*), from Kimmeridge Bay, Dorset, 440.
- , on some reptilian fossils from Gozo, 29.
- Hull, Mr. J. C. Hawkshaw on the peat- and underlying beds observed

INDEX TO THE PROCEEDINGS.

- in the construction of the Albert Dock, 237.
- Ice-scratches at Reit-Poort, S. Africa, 541.
- Ichthyosaurus enthekiodon*, 440.
- *gaudensis*, 29.
- Ichthyosaurus, Mr. J. W. Hulke on an, from Kimmeridge Bay, Dorset, 440.
- Iguanodon*, Mr. J. W. Hulke on a skull from Brooke, Isle of Wight, probably referable to the genus, 199.
- Inanda flats, section from the coast to, 59.
- India and South Africa, comparison of Cretaceous series in, 68.
- India, Northern, Mr. T. Login on the most recent geological changes of the rivers and plains of, 451.
- Intrusive bosses, sheets, dykes, and veins in the island of Eigg, 294.
- Ireng river, section across, 421.
- Ischyodus orthorhinus*, 275.
- Isle of Wight, Mr. J. W. Hulke on a large reptilian skull from Brooke, 199.
- , Punfield formation in the, 217.
- , section of the Punfield formation in the, 213.
- Izinhluzabalungu caves, 61; deposits, fauna of, 62.
- Jamieson, T. F., Esq., on the older metamorphic rocks and granite of Banffshire, 101.
- Jones, Prof. T. Rupert, notes on specimens from South Africa, 49-52.
- Judd, J. W., Esq., on the Punfield formation, 207.
- Jurassic formations of South Africa, 497.
- Kaffraria, British, denudation in, 543.
- Kaga mountains, 543.
- Karakanang valley, section across, 421.
- Karoo beds, configuration and origin of the, 535; denudation of the, 538; formation, 523; of Natal, 57; specimens from the, 49, 50.
- Katberg, 539; sections through, 537.
- Kat river, sections through, 537.
- Kessingland, section in cliff between, and Pakefield, 463.
- Kimmeridge Bay, Dorset, Mr. J. W. Hulke on a fragment of a Teleosaurian snout from, 442.
- , Mr. J. W. Hulke on an *Ichthyosaurus* from, 440.
- Kingsmill, Thomas W., Esq., on the probable origin of deposits of "Loess" in North China and Eastern Asia, 376.
- Klaas-Smit's river, section at the source of, 531.
- Kloppersfontein, section through, 537.
- Koega Kopjes, section through, 515.
- Koega river, sandstones on the, 505; section through the, 515.
- Krantzkop mountain, section through the, 57.
- Kroome mountains, 543.
- Lamellibranchiata, Mr. J. L. Lobley on the principal features of the stratigraphical distribution of the British fossil, 411.
- Leperditia? cambrensis*, 401.
- Level, Mr. J. J. Murphy on the connexion of volcanic action with changes of (Abstract), 108.
- Lias, Lower, Rhætic beds, and New Red Marl, Prof. A. C. Ramsay on the physical relations of the, 189.
- Lias, Sir P. G. Egerton, on a new Chimeroid fish from the, of Lyme Regis, 275.
- Lingulella primæva*, 401.
- Lithodomous mollusca, Sir W. C. Trevelyan on supposed borings of, 231.
- Lobley, J. Logan, Esq., on the principal features of the stratigraphical distribution of the British fossil Lamellibranchiata, 411.
- Loeas, Mr. T. W. Kingsmill on the probable origin of deposits of, in North China and Eastern Asia, 376.
- Login, T., Esq., on the most recent geological changes of the rivers and plains of Northern India, founded on accurate surveys and the artesian well-boring at Umballa, to show the practical application of Mr. Login's theory of the abrading and transporting power of water to effect such changes, 451.
- Longmynd rocks of St. David's, fossils from the, 399.
- Lower Albany, specimens from the Carboniferous rocks of, 50.
- Lower Eocene of Portsmouth, Mr. H. Woodward on some new crustaceans from the, 90.
- Lower Lias, Rhætic beds and New Red Marl, Prof. A. C. Ramsay on the physical relations of the, 189.
- Lower Sunday's river, sections on the, 500.

INDEX TO THE PROCEEDINGS.

- Lower Tertiary deposits recently exposed at Portsmouth, Mr. C. J. A. Meyer on, 74.
- Lulworth Cove, 217.
- Lycopodites, 274.
- Lyme Regis, Sir P. G. Egerton on a Chimæroid fish from the Lias of, 275.
- Lynton Grey-beds, North Devon, Dr. F. Royston Fairbank on the discovery of a "bone-bed" in the lowest of the (title only), 33.
- McLoughlin's Bluff, 500; section from Zwartkops river to, 515.
- Malaga, D. M. d'Orueta on some points in the geology of the neighbourhood of, 109.
- Mammalian remains from the forest-bed of Norfolk, 466; of the Coralline Crag of Suffolk, 132.
- Map of the geology of British Guiana, 420; of the island of Eigg, 286; of the Newhaven Tertiary outliers, 265; showing position of sections at Dordrecht, on the Upper Zwart Kei and at Klaas-Smit's river, 531.
- Metals of Natal, 70.
- Metamorphic rocks and granite of Banffshire, Mr. T. F. Jamieson on the, 101.
- Mewps Bay, 217.
- Meyer, C. J. A., Esq., on Lower Tertiary deposits recently exposed at Portsmouth, 74.
- Mica-schists of Natal, 55.
- Microdiscus sculptus*, 400.
- Minerals of Strontian, Argyllshire, Mr. R. H. Scott on the, 372.
- Mitchell, W. Stephen, Esq., on the denudation of the Oolites of the Bath district, with a theory on the denudation of Oolites generally, 228.
- Modder-drift, 503.
- Mollusca, list of, from the Red and Norwich Crags, 480.
- , lithodomous, Sir W. C. Trevelyan on supposed borings of, 231.
- of the Coralline Crag of Suffolk, 126, 137.
- Moraines of the Katberg, 539.
- Morvenite, 373.
- Mundesley, section of the Westleton beds near, 467.
- Murphy, Joseph John, Esq., on the connexion of volcanic action with changes of level (Abstract), 108.
- Natal, South Africa, Mr. C. L. Griesbach on the geology of, 53.
- Neocomian and Cretaceous, unconformity of the, in the south of England, 221.
- Neocomian and Wealden, thinning out of the, in the south of England, 222.
- , Cretaceous, and Wealden, of the south of England, relations of the Punfield formation to the, 221.
- Newhaven, Mr. W. Whitaker on the cliff-sections of the Tertiary beds at, 265.
- New Red Marl, Rhætic beds, and Lower Lias, Prof. A. C. Ramsay on the physical relations of the, 189.
- Næggerathia gibboensis*, 273.
- Norfolk and Suffolk, Mr. J. Prestwich on the Crag-beds of, with some observations on their organic remains.—Part I. The Coralline Crag of Suffolk, 115.
- — — Part II. The Red Crag of Essex and Suffolk, 325.
- — — Part III. The Norwich Crag and Westleton beds, 452.
- Normandy, Mr. W. Whitaker on the cliff-sections of the Tertiary beds west of Dieppe in, 263.
- Northampton, Mr. W. D. Herman on a mineral allied to allophane found at, 234.
- Norwich, Thorpe pit, section in, 456; fossils from, 456; Bishopford bridge, section at, 469.
- Nubian Sandstone, Mr. E. Tate on the age of the, 404.
- Old Grahamstown road, section at, 498, 499.
- Old Red Sandstone, Prof. Ramsay on the, 241.
- Oolites of the Bath district, Mr. W. Stephen Mitchell on the denudation of the, with a theory on the denudation of Oolites generally, 228.
- Oolites bathonica*, 447.
- *obtusatus*, 447.
- *sphaericus*, 447.
- Orange river, section from Alexandria to the, 537; table of elevations from Eland's Post to the banks of the, near Aliwal, 548.
- Orange valley, crystalline rocks from, 50.
- Orford, section of a pit on Broom hill, near, 122; fossils from the Coralline Crag near, 123.
- Orueta, D. M. d', on some points in the geology of the neighbourhood of Malaga, 109.
- Pakefield, section in cliff between Kes-

INDEX TO THE PROCEEDINGS.

- singland and, 463; of lower part of cliff $1\frac{1}{2}$ mile south of, 463.
- Palæocarystes glabra*, 90.
- Palæontology of the Keuper, Infra-lia, and Rhætic beds, 193.
- Paradoxides Harknessi*, 399.
- Passage-beds in the neighbourhood of Woolhope, Herefordshire, the Rev. P. B. Brodie on the, and on the discovery of a new species of *Eurypterus* and some new land-plants in them, 256.
- Paston cliff, section in, 465.
- Peat- and underlying beds observed in the construction of the Albert Dock, Hull, Mr. J. C. Hawkshaw on the, 237.
- Pecten amapondensis*, 66.
- Pectunculus africanus*, 66.
- Periods, succession of, in South Africa, 544.
- Permian strata of England, Prof. Ramsay on the, 245.
- Perton, near Stoke Edith, Herefordshire, Mr. H. Woodward on a new species of *Eurypterus* from, 261.
- Pirara, section through, 421.
- Pitchstone and porphyry coulées of the Scir of Eigg, 303.
- filling a cavity in dolerite, Eigg, 301.
- veins in Eigg, 299.
- Plants from the forest-bed of Norfolk, 467.
- Plants, Rev. P. B. Brodie on the discovery of some new land-, in the "passage-beds" of the neighbourhood of Woolhope, Herefordshire, 256.
- Pliocene or Postpliocene strata of the interior of South Africa, 515; on the coast, 516; on the coast and inland, 517.
- Plutonia Sedgwickii*, 399.
- Point St. John, section from, across St. David's promontory to Porth-y-Rhaw, 388.
- Porphyrite of the island of Eigg, 292.
- Porphyry and pitchstone coulées of the Scir of Eigg, 303.
- Port Elizabeth, salt vlei near, 507; section through, 508.
- Porth-y-Rhaw, section from Point St. John to, 388.
- Port Natal, section from, to the Rooy-Kop, 59.
- Portsmouth, Mr. H. Woodward on some new crustaceans from the Lower Eocene of, 90.
- , Mr. C. J. A. Meyer on Lower Tertiary deposits recently exposed at, 74.
- Portsmouth, sections at, 75, 79, 80, 83.
- Postpliocene or Pliocene strata of the interior of South Africa, 515; on the coast, 516; on the coast and inland, 517.
- Posttertiary or Tertiary strata of South Africa, 515.
- Prestwich, Joseph, Esq., on the structure of the Crag-beds of Suffolk and Norfolk, with some observations on their organic remains.—Part I. The Coralline Crag of Suffolk, 115.
- Part II. The Red Crag of Essex and Suffolk, 325.
- Part III. The Norwich Crag and Westleton beds, 452.
- Prestwich, Jos., Esq. (President), Address on presenting the Wollaston Medal to Prof. Ramsay, xxvii; Address on presenting the balance of the proceeds of the Wollaston donation-fund to Mr. R. Etheridge, xxix; Anniversary Address, February 17, 1871, xxx. *Obituary Notices of Deceased Fellows*:—Mr. Robert Hutton, xxxi; Sir Proby T. Cautley, xxxi; Lord Chief Baron Sir Frederick Pollock, xxxiii; Dr. Collier, xxxiii; Mr. Bradford, xxxiii; the Rev. C. Erle, xxxiii; Prof. Gustav Bischoff, xxxiii. *Notices of Papers published by the Society in 1870*:—On Glacial and Tertiary geology, xxxv; on Secondary formations, xxxvi; on Palæozoic and metamorphic rocks, xxxviii; palæontology, xxxviii; colonial and foreign geology, xxxix; foreign palæontology, xl; the Palæontographical Society, xli; address on deep-sea life and its relations to geology, xlii.
- Protospongia? major*, 401.
- Punfield Cove, section in, 212.
- Punfield formation, Mr. J. W. Judd on the, 207; relations of the, to the Wealden, Neocomian, and Cretaceous of the south of England, 221; foreign equivalents of the, 223.
- Purbeck, Isle of, Punfield formation in the, 211.
- Purbeck, relation of the, to the Wealden, 222.
- Quartz-rock of Banffshire, 102, 104.
- Queenstown, section through, 537.
- Quitaro river, section from the Roraima mountain to the, 421.

INDEX TO THE PROCEEDINGS.

- Ramsay, Prof. A. C., on the physical relations of the New Red Marl, Rhætic beds, and Lower Lias, 189.
- , on the red rocks of England of older date than the Trias, 241.
- Ramsholt, section in the Red Crag at, 327.
- Rateau, glacier of the, 318.
- Red Clay in the Cape Colony, 520.
- Red rocks of England of older date than the Trias, Prof. Ramsay on the, 241.
- Reit-poort, ice-scratches at, 541.
- Report, Annual, i; of the Library and Museum Committee, ii.
- Reptilian fossils from Gozo, Mr. J. W. Hulke on some, 29.
- Reptilian skull, Mr. J. W. Hulke on a large, from Brooke, Isle of Wight, probably Dinosaurian, and referable to the genus *Iguanodon*, 199.
- Rhætic beds New Red Marl, and Lower Lias, Prof. A. C. Ramsay on the physical relations of the, 189.
- Rhachiopteris*, sp., 273.
- Rhachiosoma bispinosa*, 91.
- *echinata*, 92.
- Rhodanien, 223.
- Roches moutonnées of the Katberg, 539.
- Rocke's Bluff, section at, 498; section through, 515.
- Roraima mountain, section from, to the Quitaro river, 421.
- Rooy-Kop, section from, to Port Natal, 59.
- Rothstock, cirques of the, 314.
- Runton Gap, fossils from, 467; section of the Westleton beds on the side of, 468.
- Rupununi river, section across, 421.
- Sacanta river, section across, 421.
- St. David's promontory, South Wales, Messrs. Harkness and Hicks on the ancient rocks of, and their fossil contents, 384.
- St. David's valley, section across, 388.
- Saliferous beds of the Uitenhage formation, 505; résumé of the, 510.
- Saltpan, Government, 505; section through, 515.
- Salt vlei, near Port Elizabeth, 507; section through, 508.
- Sandown Bay, Punfield formation in, 219.
- Sandstone, Table-mountain, 56.
- Sawkins, James G., Esq., geological observations on British Guiana, 419.
- Schaap-Kraal Hoeck, section of, 541.
- Scott, Robert H., Esq., on the minerals of Strontian, Argyllshire, 372.
- Scùr of Eigg, section through the, 287; pitchstone and porphyry cou-lées of the, 303; section at the base of the, 305; section at the cliff of Bideann Boidheach, north-west end of the, 308.
- Seaford, Mr. W. Whitaker on the chalk of the cliffs from, to East-bourne, Sussex (title only), 92.
- Sections of the gravel-brows of the Thames and Hampshire areas, 25, 26; through the Krantzkop mountain, 57; from the Bluff, Port Natal, to the Mont aux Sources, in the Draakensberg, 58; exposed by the Umgeni river, north of Durban, 59; between the Bluff, Port Natal, and the Rooy-Kop, 59; at the Lzinhluzabalungu caves, 61; through line of excavations at Portsmouth, 75; of beds with *Panopææ* in position, 79; at Whitecliff Bay compared with borings at Portsmouth, 80; ideal, showing the relative positions of the gravel and mud-deposits at Portsmouth, 83; of chalk with flints, east side of Durdle Cove, 95; of cliff west of Beer Head, 98; of part of the top of the cliff west of Branscombe mouth, 99; from the Spey to the Deveron, 102; of old pit on Mr. Colchester's farm, Sutton, 117; in old quarry, Sutton, 119; in a pit 5 furlongs E.N.E. from Sudbourne church, 120; general, of Coralline Crag, 121; of pit on Broom Hill, near Keeper's Lodge, 1 mile W. from Orford church, 122; in Punfield cove, 212; of the Punfield formation in Swanage Bay and the Isle of Wight, 213; in Worborough Bay, 216; of the cliff a quarter of a mile west of Newhaven harbour, 266; in parts of the western ditch of Newhaven fort, 266; of the geological structure of the island of Eigg, 287; of interbedded volcanic rocks, on the east side of the island of Eigg, 291; of interbedded and intrusive volcanic rocks on the east coast of Eigg, 297; of basalt veins with tachiylite edges, east side of Beinn Tighe, Eigg, 299; of basalt veins traversing interbedded dolerites, Kildonan, Eigg, 300; of a vein of pitchstone tra-

INDEX TO THE PROCEEDINGS.

- versing dolerite, Rudh an Tangairt, 300; of pitchstone filling a cavity in dolerite, Eigg, 301; at the base of the Scùr of Eigg, 305; at the cliff of Bideann Boidheach, north-west end of the Scùr of Eigg, 308; in the Red Crag at Ramsholt, 327; in Bawdsey cliff, 327, 334; in the cliff at Walton, 328; in a pit on the common about half a mile west of Butley Abbey, 329; of the upper 25 feet of the cliff, Walton-on-the-Naze, 333; in railway-cutting south of Woodbridge, 334; half a mile west of Shottisham Hall, 335; in pit by side of road $1\frac{1}{2}$ mile N.N.E. from Sudbourne church, 335; in ballast-pit, Aldborough, 335; at Chillesford, 336; in Chillesford brick-pit, 337; from the railway to the high-road, near Warren House, 339; in Bullock-yard pit, Sutton, 340; of pit near the Barn, 340; of pit at Park Farm, Tattingstone, near Ipswich, 342; of pit near Bulchamp Union, 344; of cliff at Easton Bavent, 345; across St. David's promontory, 388; from the Roraima mountain to the Quitaro river, 421; in pit at Aldeby, 454; in Thorpe pit, Norwich, 456; in chalk-pit, Coltishall, 459; of the lower part of the cliff west of Sherringham, 460; of the north end of Southwold cliff, 462; near the north end of Easton-Bavent cliff, 462; of the cliff between Kessingland and Pakefield, 463; of the lower part of the cliff $1\frac{1}{2}$ mile south of Pakefield, 463; of the cliff near Bacton, 464; in Paston cliff, 465; of the Westleton beds near Mundesley, 467; of the Westleton beds on the side of Runton Gap, 468; at Bishopford bridge, Norwich, 469; collated, on the Zwartkops river, 498; of the salt vlei and flat on the south side of the creek or Ferreira's river, 508; of outlier near the salt vlei, 509; showing the relative positions of the Trigonina-beds, the saliferous group, and the Posttertiary shell-limestone of South Africa, 515; at Dordrecht, on the Upper Stormberg, 524; on the Upper Zwart Kei, between the Great Winterberg and the Groot Tafelberg, 526; of the Stormberg, at the source of Klaas-Smit's river, 531; from the sea at Alexandria to the Orange river, 537; showing the dip of the Upper Karoo-beds from Beaufort to the Washbank, 537.
- Sedimentary strata of Banffshire &c., derivation of the, 106.
- Sheets, intrusive, in the island of Eigg, 295; section of, 297.
- Shell-beds, latest, in the Cape Colony, 520.
- Sherringham, section in cliff near, 460.
- Shottisham hall, section near, 335.
- Sigillaria*, *Calamites*, and *Calamodendron*, Dr. J. W. Dawson on the structure and affinities of, 147.
- Sigillaria*, structure of, 147; erect trunks of, 148; prostrate trunks of, 149.
- Sizewell cliff, fossils from, 343.
- Slates of Banffshire, 104.
- Solarium Wiebelsi*, 65.
- Solenastræa Prestwichi*, 369.
- South-African geology, Mr. G. W. Stow on, 28, 52, 497, 523.
- Southwold cliff, section of north end of, 462.
- Spain, Eastern, coal-bearing strata of, 224.
- Spey, section from the, to the Deveron, 102.
- Sternbergia, structure of, 150.
- Stoke Edith, Herefordshire, Mr. H. Woodward on a new species of *Eurypterus* from Perton near, 261.
- Stormberg, coal from the, 51; denudation north of the, 543; section on the south side of the, at the source of Klaas-Smit's river, 531; sections through, 537.
- , Upper, section at Dordrecht on the, 524.
- Stow, George William, Esq., on some points in South-African geology, Part I., 28, 497.
- — —. Parts II. and III., 52, 523, 534.
- Strontian, Argyllshire, Mr. R. H. Scott on the minerals of, 372.
- Strontianite, 373.
- Sudbourne church, pit 5 furlongs E. N.E. from, 120; pit $1\frac{1}{2}$ mile N.N.E. from, 335; fossils from, 332.
- Suffolk and Norfolk, Mr. J. Prestwich on the Crag-beds of, with some observations on their fossil remains. Part I. The Coralline Crag of Suffolk, 115.
- — —. Part II. The Red Crag of Essex and Suffolk, 325.
- — —. Part III. The Norwich Crag and Westleton beds, 452.

INDEX TO THE PROCEEDINGS.

- Sundays river, section through, 515.
 Sutton, section of crag-pit on Mr. Colchester's farm, 117; fossils from Coralline Crag at, 117, 118, 119; sections of Red Crag at, 340.
 Swanage Bay, section of the Punfield formation in, 213.
- Table-mountain sandstone, 56.
 Tafelberg, Groot, section on the Upper Zwart Kei between the, and the Great Winterberg, 526; sketch of, 547.
 Tafelbergen, Twee, sketch of, 547.
 Talcose slate formation of, Natal, 55.
 Tate, Ralph, Esq., on the age of the Nubian Sandstone, 404.
 Tattlingstone, near Ipswich, section of Crag at, 342.
Teleosaurus megarhinus, 442.
 Teleosaurian snout, Mr. J. W. Hulke on a fragment of a, from Kimmeridge Bay, Dorset, 442.
 Tertiary beds, Mr. W. Whitaker on the cliff sections of the, west of Dieppe in Normandy, and at Newhaven in Sussex, 263.
 — climats of South Africa, Mr. G. W. Stow on the, 534.
 — deposits recently exposed at Portsmouth, Mr. C. J. A. Meyer on Lower, 74.
 — or Posttertiary strata of South Africa, 515.
 — volcanic rocks of the British Islands, Prof. Geikie on the, 279.
Teudopsis Brodiei, 448.
Theca antiqua, 400.
 Thorpe pit, Norwich, section in, 456; fossils from, 456.
 Torcal, 110.
 Tree-ferns and other fossils from the Devonian, Dr. J. W. Dawson on some, 269.
 Trevelyan, Sir W. C., Bart., on supposed borings of Lithodomous Mollusca, 231.
 Trigonía-beds of the Uitenhage formation, 498.
Trigonía Shepstonei, 66.
 Tufts of the island of Eigg, 293.
 Tullich, hill of, section through, 102.
- Uitenhage formation, Trigonía-beds of the, 498; saliferous beds of the, 505.
 Umgeni river, section exposed by the, 59.
 Untamfuna river, Cretaceous fossils from, 67.
 Unamara river, section across, 421.
- Unconformity between the Cretaceous and Neocomian in the South of England, 221.
 Urgonian, 223.
- Vaal valley, crystalline rocks from, 50.
 Valleys, Alpine, Rev. T. G. Bonney on theories of the excavation of, 312; basin-like, 540.
 Veins in the island of Eigg, 298; basalt, with tachylite edges, east side of Beinn Tighe, Eigg, 299; anamesite and dolerite, in the island of Eigg, 299; pitchstone and felstone in Eigg, 299; basalt, traversing interbedded dolerites, Kildonan, Eigg, 300; pitchstone, traversing dolerite, Rudh an Tangairt, Eigg, 300.
 Volcanic action, Mr. J. J. Murphy on the connexion of, with changes of level (Abstract), 108.
 Volcanic rocks, Tertiary, of the British Islands, Prof. Geikie on the, 279.
- Waetipu mountain, section through, 421.
 Waldringfield, Prof. Duncan on a new species of Coral from the Red Crag of, 369.
 Walton-on-the-Naze, sections in the cliff at, 328, 333.
 Warren house, section near, 339.
 Washbank, section through the, 537.
 Watersheds of Natal, 54.
 Wealden and Neocomian, thinning out of the, in the south of England, 222.
 —, Neocomian, and Cretaceous of the south of England, relations of the Punfield formation to the, 221.
 —, relations of the Purbeck to the, 222.
 Weald, sections of Punfield beds in the, 220.
 —, S. V. Wood, Jun., Esq., on the evidence afforded by the detrital beds without and within the north-eastern part of the valley of the, as to the mode and date of the denudation of that valley, 3.
 Westleton beds, Mr. J. Prestwich on the, 461.
 Weybourne, Crag fossils from near, 460.
 Whitaker, W., Esq., on the chalk of the cliffs from Seaford to Eastbourne, Sussex (title only), 92.
 —, on the chalk of the southern part of Dorset and Devon, 93.

INDEX TO THE PROCEEDINGS.

- Whitaker, W. Esq., on the cliff-sections of the Tertiary Beds west of Dieppe in Normandy, and at Newhaven in Sussex, 263.
- Whitecliff Bay, section at, 80.
- Whittlesea, section through, 537.
- Winterberg, Great, section on the Upper Zwart Kei between the, and the Groot Tafelberg, 526.
- Wollaston Donation Fund, award of the Balance of the Proceeds of the, **xxix**; Medal, award of the, **xxvii**.
- Wood, S. V., Jun., Esq., on the evidence afforded by the detrital beds without and within the north-eastern part of the valley of the Weald as to the mode and date of the denudation of that valley, 3.
- Woodbridge, section in railway-cutting south of, 334.
- Woodward, Henry, Esq., on a new species of *Eurypterus* (*E. Brodiei*) from Perton, near Stoke Edith, Herefordshire, 261.
- Woodward, H. Esq., on some new crustaceans from the Lower Eocene of Portsmouth, 90.
- Woolhope, Herefordshire, Rev. P. B. Brodie on the "passage-beds" in the neighbourhood of, and on the discovery of a new species of *Eurypterus* and some new land-plants in them, 256.
- Worborrow Bay, section in, 216.
- Yarn Hill, fossils from, 346.
- Zwart Kei, Upper, section on the, 526; contour-plan of exposures of strata on the, 527.
- Zwartkops river, collated sections on the, 498.
- — —, section from, to McLoughlin's Bluff, 515.