

GENERAL INDEX TO VOLUME CXIII

- Aberfoyle anticline, 380-3.
 Aberfoyle (Perth) district, structures in Dalradian in, 373-4, 375 fig., 381-2, pl. xxxi.
 Aberfoyle Slates, attitude of, 364, fig.; in Dunkeld area, 371-2, fig., 373, 374; relation to Ben Ledi & Leny Grits 379-80.
 AGER, D. V., discusses Howarth's paper, 203-4.
 Alkali-alumina-silicate systems, experimental studies in, 325-32, figs.
 Alkali igneous complexes, rock sequences in, 332-4.
 Alkali rocks, genesis of, 323-60, figs., pls. xxiv-xxix.
 Allt na Féithe Buidhe (Ross-shire), Lewisian-Moine contact at, 72, 73 map, 74, 76.
 Alston Block (& Durham Coalfield), gravity survey of, 93-117, figs., pls. x & xi; magnetic survey of, 119-36, figs., pls. xii & xiii.
 Alumina, in Cleengort Schists, 399, 400.
 Amaltheidae in Dorset Domesian, 197.
Amaltheus gibbosus Subzone, Dorset coast, 192, 193, 197, 200, 201.
 — *margaritatus* Clay, Dorset coast, 191, table.
 — — Stone, Dorset coast, 186, 190 fig., 191 table, 194.
 — — Zone, 185, 186; on Dorset coast, 187, 188-9, 193-4.
 — *stokesi* Subzone, Dorset coast, 187, 188-9, 197, 200, 201.
 — *subnodosus* Subzone, Dorset coast, 191, 193-4, 197, 200, 201.
 Ammonites, Domesian, of Dorset coast, 194-200, pl. xvii.
 ANDERSON, J. G. C., discusses Clifford's paper, 86-7; discusses Shackleton's paper, 389-90.
 Ardara pluton (Donegal), petrochemistry of aureole rocks, 393-408, figs., tables.
Arietiaceras, 198.
 Arran, structures in Dalradian of, 365-6, fig., 377-8, map, 380.
 ASHWIN, D. P., discusses Gill & Kuenen's paper, 459.
 BAKER, J. M. C. W., discusses Johnson's paper, 268.
 Ballintra (Donegal), sects. in Carb. at, 144 fig., 155 fig.
 Ballyshannon (Donegal), sects. in Carb. at, 144 fig., 155 fig., 160 fig., profile of B.-Edergole area of Doorin-Coolmore sedimentation, 169-70, fig.; ditto of B.-Largymore area, 170, fig.
 Ballyshannon Limestone Group, 138, 141-51, figs., pl. xiv; palaeogeography of, 166-7, maps; fossil list of, 172-4.
 Banagher grits & conglomerates, 159-61, pl. xv.
 Bangaher Hill (Donegal), Ballyshannon Group in, 143, 144 fig.; sect. in Doorin-Coolmore group at, 160 fig.
 Beinn a' Chaoinich-Beinn Mhialairidh fold, Inverness, 505-6, 507 *et sqq.*
 Beinn a' Chapuill antiform & Gleann Beag synform, Inverness, 497-505, figs., 506 *et sqq.*, 509 fig.
 Beinn Bhreac anticline, Ross, 75 map, 77.
 Beinn Dronaig (Ross), correlation of succession in, 68.
 Beinn Mhialairidh-Beinn a' Chaoinich fold, Inverness, 505-6, 507 *et sqq.*
 Ben Ledi antiform, 385 fig., 386 fig.
 Ben Ledi Grits, relation to Aberfoyle Slates & Leny Grits, 379-80.
 Biotite in Cleengort Schists, 404-5, anal.
 Birmingham (S.), Pleistocene of, 223-37, figs.
 BISHOP, W. W., discusses Pickering's paper, 238-9.
 Botany Grit, Cotherstone syncline, 45 fig., 47 *et sqq.*
 Botany Limestone, Cotherstone syncline, 45 fig., 47-50, faunal list.
 BOTT, M. H. P. (& D. MASSON-SMITH), the geological interpretation of a gravity survey of the Alston Block & the Durham Coalfield, 93-117, figs., pls. x & xi; interpretation of a vertical field magnetic survey in North-East England, 119-29, figs., pls. xii & xiii, 134-6.
 Bouguer anomalies, Alston Block, 100-4, fig., 107-13, figs., pls. x-xii; relation to structure of Block, 113-4.
 Boulder-clay, Madeley area, 413, 414 map, 415; Lower B.-c. of S. Birmingham, 224, 232; Middle & Upper B.-c. & Gravels, 224, 227, 231 *et sqq.*
 BOWES, D. R., discusses Ramsay's paper, 521.
 BROWN, G. M., discusses Rothstein's paper, 24-5.
 Bruckless (Donegal), Ballyshannon Group at, 146-8, map, 154, 155 sect.

- Bruckless-Calhame beds, 146; fossil list of, 172-4.
- Bryn (= Cnapiog or Garw) Coal, S. Wales, 461, 463, 471 fig., 472, 473.
- Brynmawr to Vale of Neath (S. Wales), basal Coal Measures in, 473-7.
- BULLERWELL, W., discusses papers by Bott & Masson-Smith, 131-2.
- Burnopfield gravity anomaly, 100, 105.
- Bute, structures in Dalradian of, 376-7, 380, 381.
- Butterknowle fault, 95; Bouguer anomaly across, 111-2, fig.
- Calhame. *See* Bruckless-Calhame.
- CALVER, M. A., discusses paper by Leitch & others, 486.
- CAPEWELL, J. G., discusses papers by Bott & Masson-Smith, 133; discusses paper by George & Oswald, 180.
- Carbonate syntexis hypothesis of origin of alkali rocks, 334-7.
- Carbonicola pseudorobusta* band, S. Wales Coalfield, 464 fig., 467.
- Carboniferous, of Cothorstone syncline, 27-56, figs., pls. vi & vii; of Donegal syncline, 137-83, figs., pls. xiv-xvi; sand volcanoes in Carb. of Co. Clare, 441-60, figs., pls. xxxiv-xxxvi.
- Checkley Brook valley (Staffs.), 412-3.
- Chrome-spinel horizon in Dawros peridotite, 6, 7, 9-10, pls. i & ii.
- Clare, Co. (Ireland), sand volcanoes in Carb. of, 441-60, figs., pls. xxxiv-xxxvi.
- Clays, glacial, Madeley area, 414 map, 416-7.
- Cleengort Schists, 394, 395, 396-406, figs., anals.
- CLIFFORD, P., discusses Ramsay's paper, 306.
- CLIFFORD, T. N., the stratigraphy & structure of part of the Kintail district of southern Ross-shire; its relation to the Northern Highlands, 57-85, figs., pls. viii & ix, 90-2.
- Clydach valley (S. Wales), basal Coal Measures in, 471 sect., 475-7.
- Cnapiog (= Garw or Bryn) Coal, S. Wales, 461, 462, 464 *et seq.*
- Coal Measures (basal), between Llandybie & Brynmawr, 461-86, figs.
- Coal seams, Durham Coalfield, devolatilization of as evidence of Weardale granite, 105, 106.
- Coire nan Gall Series (Moinian), Kintail, 59, 66-7, 68.
- Coolmore Shales, Donegal syncline, 138, 157-8; fossil list of, 172-4; *see also* Doorin-Coolmore.
- Cornsay gravity anomaly, 100.
- Cotherstone syncline, 27-56, figs., pls. vi & vii.
- Coulin Forest (Ross), Moine thrust zone in, 241-70, figs., pls. xx-xxii.
- Cowal (Argyllshire), structures in Dalradian of, 375-6, 380, 381.
- Cowal antiform, 375-6, 383, 384 sect., 385.
- Craddocks, (glacial) Lake, 420, 421 map, 423-4.
- Craddocks Moss (Staffs.), 413.
- Craiglea (Perth) quarry, 371 fig., 372.
- Creag na h-Iolaire (Ross), garnetiferous mica-schists of, 59, 67, 68.
- Crow cyclothem, Cothorstone, 37 fig., 40.
- Cwm Gwrolech (S. Wales), 463; marker bands in, 464 fig.; sect. in basal Coal Measures in, 465-7, 471 fig.
- Cwm Wyrfa (S. Wales), basal Coal Measures in, 473.
- Cyclothem, Carboniferous of Cothorstone area, 31-50, figs.
- Cynon valley (S. Wales), basal Coal Measures in, 473-4, 477.
- Dactyloceras directum*, 197-8, pl. xvii.
- Dalradian, Highland Border, downward-facing structures in, 361-92, figs., pls. xxx-xxxii.
- Dawros (Connemara) peridotite, 1-25, figs., pls. i-v.
- Day's Shell Bed, Golden Cap, 186 *et seq.*, 194.
- Dean Brook glacial basin (Staffs.), 410 map, 413.
- DEANS, T., discusses Love's paper, 437.
- Deformation of Lewisian rocks at Glenelg, 491-6, figs.; of fold structures at Glenelg, 508-12, figs.
- Densities, Alston Block rocks, 99-100.
- DIXEY, F., discusses papers by Bott & Masson-Smith, 133.
- DOLLAR, A. T. J., discusses Reading's paper, 54; discusses papers by Bott & Masson-Smith, 133-4.
- Domerian, Dorset coast, 185-204, figs., pl. xvii.
- Donegal, sect. in Doorin-Coolmore group at, 160 fig.
- Donegal syncline, Carb. of, 137-83, figs., pls. xiv-xvi.
- Doorin-Coolmore group, Donegal syncline, 157-62, 167-72, maps, sects.
- Doorin Shales, Donegal syncline, 147 map, 158-9, pl. xv; fossil list of, 172-4.
- Dorset coast, Middle Lias of, 185-204, figs., pl. xvii.
- Dowlais (S. Wales), basal Coal Measures at, 473, 474.
- Down Cliff Sands, Golden Cap, 187, 188, 189, 194.
- Drainage, pre-glacial, Madeley area, 417-8, 419 fig.
- Drifts, S. Birmingham, 223-37, maps.
- Drill-core Y.R.10 (York R.), 339, 342-51, figs., chem. anals., pls. xxv & xxvi.

- DUNHAM, K. C., reads Reading's paper, 27; in discussion of same, 55; discusses papers by Bott & Masson-Smith, 130-1; discusses Firman's paper, 221.
- Dunkeld (Perth), structures in Dalradian at, 371-2, fig., 380-1, 382, pl. xxxii.
- Dunkineely (Donegal), Ballyshannon Group at, 147 map, 148-51, 155 sect.
- Durham Coalfield (& Alston Block), gravity survey of, 93-117, figs., pls. x & xi; magnetic survey of, 119-29, figs., pls. xii & xiii, 134-6.
- EAGER, R. M. C., discusses Love's paper, 438.
- Earth movements, dating of, 312-4; rhythm of, 312, 314-5, 318-20.
- EASTWOOD, T., discusses Pickering's paper, 238.
- Edergole (Donegal), Ballyshannon Group in, 143, 144 fig., 145, 146.
- Edzell (Forfar). *See* Esk R.
- England (NE.), gravity survey of, 93-117, figs., pls. x & xi; magnetic survey of, 119-29, figs., pls. xii & xiii, 134-6.
- Epidote zone in garnet-bearing veins around Shap Granite, 210-11, fig., 217-9, 220.
- Esk R., North (Forfar), sect. in Dalradian in, 366, 368-70, fig., 380.
- Eske, Lough, area (Donegal), Ballyshannon Group in; 143-6, fig.
- Essexite, Ditro, 351, pl. xxix.
- Eype Clays, Dorset coast, 189, 194.
- Eype Nodule Bed, Golden Cap, 186 *et seq.*, 194.
- Fannich Forest & Strath Bran (Ross-shire), correlation of succession in, 68.
- 'Farewell Rock,' S. Wales, 462-3, 464 fig., 465 *et seq.*
- Faults, in Moine rocks of Coulin Forest, 260-1.
- FIRMAN, R. J., fissure metasomatism in volcanic rocks adjacent to the Shap Granite, Westmorland, 205-21, figs., pls. xviii & xix, 222.
- Fisherstreet Bay (Co. Clare), sand volcanoes at, 442, 443 map, 444, 452 fig., pl. xxxiv.
- Fissure metasomatism in rocks adjacent to Shap Granite, 205-22, figs., pls. xviii & xix.
- FLEUTY, M. J., discusses Clifford's paper, 89; Johnson's paper, 268; Ramsay's papers, 305-6, 522.
- Fluorite zone of mineralization, N. Pennines, 104-5; map of Bouguer anomalies &, pl. x.
- Fluorspar, colour bands in, 105.
- Folding, in Kintail district, 75 map, 76-8, 81-2; superimposed, in Loch Monar area, 271-307, figs., pl. xxiii; of Lewisian & Moinian at Glenelg, 497-513, figs., 515-6.
- Fossil Sandstone cyclothem, Cotherstone, 45 fig., 47-50, sect., faunal lists.
- Four Fathom cyclothem, Cotherstone, 32 fig., 33-5.
- FRANCIS, G. H., discusses Clifford's paper, 87.
- Freagh Point (Co. Clare), sand volcanoes at, 443 map, 444-5, fig., 452 fig., pl. xxxv.
- Gareloch (Dunbarton), structures in Dalradian at, 374-5, fig.
- Garnet-bearing veins in rocks around Shap Granite, 209-14, fig., 213-4, pls. xviii & xix, 215-9, chem. anal.
- Garnetiferous Mica-Schist Series (Moinian), Kintail, 59, 63-4, chem. anal., 67 *et seq.*
- Garnets, from Garnetiferous Mica-Schist Series, anal. of, 64; in veins around Shap Granite, 211-2, chem. & optical anal., 213, 217-9, pls. xix.
- Garw (= Cnaplog or Bryn) Coal, S. Wales, 461, 462, 463, 473 *et seq.*
- Gastrioceras subcrenatum* marine band, S. Wales Coalfield, 461, 463, 464 fig., 465 *et seq.*
- Geology, progress in, 309-21.
- GEORGE, T. N. (& D. H. OSWALD), the Carboniferous rocks of the Donegal syncline, 137-79, figs., pls. xiv-xvi, 181-3; discusses paper by Leitch & others, 486.
- Gibbirhynchia thorncombiensis* Bed, Dorset coast, 191, 192, 193.
- Giedd R. (S. Wales), basal Coal Measures in, 467, 470, 471 fig., 472, 475, 477.
- GILL, W. D., discusses paper by George & Oswald, 179-80; discusses Johnson's paper, 267; (& P. H. Kuenen), sand volcanoes on slumps in the Carboniferous of County Clare, Ireland, 441-57, figs., pls. xxxiv-xxxvi, 459-60; discusses Ramsay's paper, 521-2.
- Gilsland-Warkworth magnetic anomaly, 127-8, fig.
- Glacial lakes, Birmingham area, 231-5, maps; (& spillways) near Madeley, 409-29, figs.
- Glauconites, ages of, 314.
- Gleann Beag synform & Beinn a' Chpuill antiform, 497-505, figs., 506 *et seq.*
- Glenelg (Inverness), Moine-Lewisian relations at, 487-523, figs., pls. xxxvii & xxxviii.
- Gneiss, of Dawros, 4-5, 17, 19; of Lewisianoid Gneiss Group, 63 chem. anal., 64-5, pl. viii; of Coire nan Gall Series, 66-7, pl. viii.
- Golden Cap cliffs (Dorset), Middle Lias of, 187-9, sect.
- Goleen Bay (Co. Clare), sand volcanoes at, 443 map, 446-8, figs.
- Granite. *See* Weardale granite.

- GRANTHAM, D. R., discusses Gill & Kuenen's paper, 459.
- Granulite, Moinian, 62, 63 chem. anal.
- Gravity survey of Alston Block & Durham Coalfield, 93-117, figs., pls. x & xi.
- Great cyclothem, Cotherstone, 32 fig., 35-8.
- Greenan (Donegal), Ballyshannon Group in, 143, 144 fig.
- GREENSMITH, J. T., discusses Love's paper, 439.
- Gweebarra Bay (Donegal) area, Dalradian of, 394-6, map.
- Gwys R. (S. Wales), basal Coal Measures in, 467, 470, 472.
- HALLIMOND, A. F., discusses Love's paper, 438.
- HAMPTON, J. S., discusses Love's paper, 438.
- HARDIE, W. G., 408.
- Harrison, Lake, 230, 231, 233 map, 235.
- Harzburgitic group of Dawros peridotites, 6, 7-9, 10, 11, 21, pl. i.
- HAWKES, L., some aspects of the progress in Geology in the last fifty years (Anniversary Address), 309-21.
- Heat flow in South Helton borehole, Weardale granite &, 105-6.
- Highland Border (Scotland), downward-facing structures of, 361-92, figs., pls. xxx-xxxii.
- Highland Boundary fault, 138; relation to Highland Border structures, 387.
- HODSON, F., discusses paper by George & Oswald, 180; by Gill & Kuenen, 458.
- HOLLINGWORTH, S. E., 25; discusses papers by Bott & Masson-Smith, 131; by Firman, 221; by Shackleton, 390.
- Hornblende zone in garnet-bearing veins around Shap Granite, 210, fig.
- How Gill (Yorks.), Fossil Sandstone cyclothem & Botany Limestone in, 47.
- HOWARTH, M. K., the Middle Lias of the Dorset coast, 185-203, fig., pl. xvii, 204.
- HUDSON, R. G. S., discusses Reading's paper, 53-4.
- Hunter's Quay (Cowal), 375-6, 381.
- Hypersthene-pyroxenites, Dawros, 6, 9.
- 'Itay nappe,' the name, 383 footnote.
- Inverinate-Allt na Féithe Buidhe (Ross), Lewisian-Moine contact at, 72, 73 map, 74, 76.
- Irish Sea Glaciation in Madeley area, 419-24, figs.
- Iron Post cyclothem, Cotherstone, 32 fig., 33-5.
- JOHNSON, M. R. W., discusses Clifford's paper, 89-90; the structural geology of the Moine thrust zone in Coulin Forest, Wester Ross, 241-66, figs., pls. xx-xxii, 269-70; discusses Ramsay's papers, 306, 522.
- Joints, in Moine of Coulin Forest, 260-1.
- JONES, D. G. See LEITCH, D.
- JONES, O. T., discusses Gill & Kuenen's paper, 458-9.
- Junction Bed (Lias), Dorset coast, 186, 189, 190 fig., 191 *et seq.*
- Keltie Water (Perthshire), 373, 380, 381.
- KENNEDY, W. Q., discusses Clifford's paper, 87.
- Kildoney Sandstone, Donegal syncline, 138, 162-4; fossil list of, 172-4.
- Killin Hill (Donegal), Doolin-Coolmore group on, 160 fig., 161-2; K. grits, 161-2, 164, 169, pl. xv.
- KING, B. C., discusses Ramsay's paper, 520-1.
- Kintail district (Ross), stratigraphy & structure of, 57-92, figs., pls. viii & ix.
- Kintyre, structures in Dalradian of, 378-9.
- Kishorn nappe, Coulin Forest, 246, 248-9, 256-60, 261-5, figs.
- Klippe, Kintail, 69-72.
- Laghy (Donegal), sect. in Ballyshannon group at, 144 fig.
- LAMBERT, R. St. J., discusses Clifford's paper, 87-8.
- Largymore-Ballyshannon area of Doorin - Coolmore sedimentation, profile through, 170, fig.
- Largymore syncline (Donegal), Ballyshannon Group in, 151-4, map, sect.
- LEITCH, D. (& T. R. OWEN & D. G. JONES), the basal Coal Measures of the South Wales Coalfield from Llandybie to Brynmawr, 461-83, figs.
- Leny Grits, relation to Aberfoyle Slates & Ben Ledi Grits, 379-80.
- Leptaleoceras*, 198.
- *pseudoradians*, 198-9, pl. xvii.
- Lewisian, Coulin Forest, 243 fig., 245-6, 252 fig., 253 fig.; relation to Moinian in Kintail, 72, 73, map, 74, 76; in Glenelg area, 487-523, figs., pls. xxxvii & xxxviii.
- Lewisian Gneiss group, Kintail, 59-62, 67 *et seq.*
- 'Lewisian' rocks, Loch Monar, 273-4, 300-1, 302-3, figs.
- Lewisianoid Gneiss Group, Kintail, 59, 64-5, 67 *et seq.*
- Lherzolic group of Dawros peridotites, 6, 11-12.
- Lias (Middle), of Dorset coast, 185-204, figs., pl. xvii.
- Liparoceras (Becheiceras) nautiliforme*, 196.
- Little cyclothem, Cotherstone, 37 fig., 38-9, faunal lists.

- Llandybie to Brynmawr (S. Wales), basal Coal Measures in, 467-73, figs.
 Llêch plant beds, 467, 472, 473, 479.
 Llêch valley (S. Wales), basal Coal Measures in, 467-9, 474, 477; marker bands in, 468 fig.
 Lomond, Loch, district, structures in Dalradian in, 374, 375 fig., pl. xxxi.
 LOVE, L. G., micro-organisms and the presence of syngenetic pyrite, 429-37, fig., pl. xxxiii, 438-40.
 Lunedale fault, 95; Bouguer anomaly across, 111, fig.
Lytoceras fimbriatum, 195-6.
- McCONNELL, R. B., discusses Johnson's paper, 268.
 Macfadyen, W. A., discusses Love's paper, 437.
 Madeley (Staffs.), glacial lakes & spillways near, 409-29, figs.
 Madeley glacial basin, 410 map, 412.
 Madeley, (glacial) Lake, 420, 421 map, 422-3.
 Magma chemistry, tectonic control in, 324-5.
 Magnesium in Cleengort Schists, 402, fig.
 Magnetic anomaly, Alston Block, 106, 121-6, figs., pls. x-xiii; m. survey, NE. England, 119-29, 134-6.
 Marine & non-marine strata in Cotherstone area, comparative thicknesses of, 35, table.
 Marlstone Rock Bed, Dorset coast, 192, 193.
 MASSON-SMITH, D. *See* BOTT, M. H. P.
 Merthyr Tydfil (S. Wales), basal Coal Measures at, 462, 474-5.
Metacymbites centriglobus, 196, pl. xvii.
 Metamorphism, thermal, of Carb. shales, Weardale granite &, 105.
 Metasomatism. *See* Fissure metasomatism.
 Mica-schist, garnetiferous, Moine Series, 63 chem. anal., 64.
 Micro-organisms & the formation of pyrite, 429-40, fig., pl. xxxiii.
 Midland Valley of Scotland, nappes beneath, 387.
 Mineral assemblages in York River nepheline belt, 344-51, chem. anal.
 Mineralization, N. Pennines, as evidence of Weardale granite, 104-5; map of Bouguer anomalies &, pl. x; m. of fissures & wall-rock around Shap Granite, 209-15, fig.
 Moine nappe, Coulin Forest, 246, 247-56, figs., 261-5, figs.
 Moine Series of Kintail, 58, 59, 62-7; of Coulin Forest, 243 fig., 244-5, 255-6, pl. xxii; of Loch Monar, 271-307, figs, pl. xxiii; relations to Lewisian in Kintail, 72, 73 map, 74, 76; ditto at Glenelg, 487-523, figs., pls. xxvii & xxviii.
- Moine thrust zone in Coulin Forest, 241-70, figs., pls. xx-xxii.
 Monar, Loch, area (Scotland), superimposed folding in, 271-307, figs., pl. xxiii.
 MOORE, L. R., discusses Love's paper, 437; discusses paper by Leitch & others, 484.
 MOSELEY, F., 428-9; *see also* YATES, E. M.
 Mountcharles (Donegal) Sandstone, 160 fig., 164, 169, 172, pl. xv.
 Muckros Head (Donegal), Ballyshannon Group at, 154-6, map, sect.; M. H. Sandstone, 147 map, 152 *et seq.*, 155-6, 172-4, pl. xv.
 Mutton Island (Co. Clare), sand volcanoes at, 443 map, 445-6, pl. xxxiv.
- Nant Helen (S. Wales), 470.
 Nant-y-Gwyddyl (S. Wales), sects. in basal Coal Measures in, 467.
 Neath, Vale of, to Llandybie, sects. in basal Coal Measures, 467-73, figs.; to Brynmawr, 473-7.
 Nepheline belt, York River, 340 map, 341-56, figs., chem. anal., pls. xxiv-xxix.
 Nepheline-gneiss, York River, 346-7, chem. anal., pl. xxv.
 Nepheline-syenite, Chaunggyi, 351, pl. xxix.
 Nephelinization in alkali rock genesis, 337-9, 351-7, chem. anal.
 Newtyle quarry, Dunkeld, sect. in, 371, fig.
 Ninety Fathom Dyke, Durham Coalfield, 95, 96; gravity anomaly across, 108-10, figs.
 North Crof of S. Wales Coalfield, basal Coal Measures along part of, 461-86, figs.
 Northumberland Coalfield, 96; magnetic survey of South N. & Durham, 119-29, figs., pls. xii & xiii.
- Oistoceras figulinum* Subzone at Golden Cap, 189, 200.
 Older Drift, Birmingham, contour-map of, 228, 230.
 Olivine / chrome-spinel accumulate in Dawros peridotite, 10, pls. i & ii.
 Ordovician of Highland Border, Structures in & age of nappes, 387-8.
 OSWALD, D. H. *See* GEORGE, T. N.
 OWEN, T. R., 485-6; *see also* LEITCH, D.
- Palaeogeography of Donegal syncline, 164-72, maps, sects.
Paltarpites, 199.
 — *paltus*, 199.
 — *platypleurus*, 199.
 Pedol R. (S. Wales), basal Coal Measures in, 467, 471 fig., 472, 475, 477.

- Pegmatite, Lewisianoid Gneiss Group, 63, 65, pl. viii.
- Pennine fault system, 95; North P. mineralization, Weardale granite & 101, fig., 104-5, 106; North P. uplift, 114-5, pl. x.
- Peridotite, Dawros, 1-25, figs., pls. i-v.
- Pettigo Limestone. *See* Ballyshannon Limestone.
- PHILLIPS, F. C., discusses Johnson's paper, 266.
- PICKERING, R., the Pleistocene geology of the South Birmingham area, 223-37, figs.
- PITCHER, W. S., discusses paper by George & Oswald, 179; (& R. C. SINHA), the petrochemistry of the Ardara aureole, 393-408, figs., table iii.
- Pleistocene, South Birmingham, 223-37, figs.
- Pleuroceras apyrenum* Subzone, Dorset coast, 192, 193, 197, 200, 201.
- *hauskerense* Subzone, Dorset coast, 192, 193, 197, 200, 201.
- *spinatum* Zone, Dorset coast, 185, 186, 192, 193.
- Pollen in plastic clay from Madeley area, 416.
- POOLE, E. G. *See* WHITEMAN, A. J.
- PRICE, D., discusses Love's paper, 437-8.
- PRICE, R. H., discusses papers by Bott & Masson-Smith, 132-3.
- Productyloceras davoei* Zone at Golden Cap, 189.
- Prosen Water (Forfar), sect. in Dalradian along, 370, fig.
- Pyrddin R. (S. Wales), sects. in basal Coal Measures in, 467.
- Pyrite, micro-organisms & the formation of, 429-40, fig., pl. xxxiii; p. veins around Shap Granite, 214-5.
- Pyritella* gen. nov., 433-4.
- *polygonalis* gen. et sp. nov., 434-5, pl. xxxiii.
- Pyritosphaera* gen. nov., 433.
- *barbaria* gen. et sp. nov., 432 fig., 433, pl. xxxiii, 434-5.
- Pyroxenes of Dawros peridotites, optical data on, 16.
- Pyroxenites, Dawros, 7, 8, 9, 11, 12, 13, 18, pl. iii.
- Quartz veins, deformed, near Moine-Lewisian contact, 74, figs.
- Quaternary deposits, Madeley area, 413-7, map.
- Ramp Hole (Donegal) sandstone, 158-9, 160 fig., 161, 162, 169, pl. xiv.
- RAMSAY, J. G., discusses Clifford's paper, 88-9; on superimposed folding at Loch Monar, Inverness-shire & Ross-shire, 271-305, figs., pl. xxiii, 307; on Moine-Lewisian relations at Glenelg, Inverness-shire, 487-520, figs., pls. xxxvii & xxxviii, 522-3.
- RAMSBOTTOM, W. H. C., discusses paper by Leitch & others, 484.
- RAST, N., discusses Johnson's paper, 267.
- READING, H. G., the stratigraphy & structure of the Cotherstone syncline, 27-53, figs., pls. vi & vii, 55-6.
- Rhymney Bridge (S. Wales), basal Coal Measures at, 471 sect., 473, 475.
- Rinn Point Beds, Donegal syncline, 143, 147 map, 148 *et seq.*, 167; succession in Largymore syncline, 152-3; fossil list of, 172-4.
- Rock densities, Alston Block, 99-100.
- Rocks, age-determinations of, 309-11.
- Rookhope gravity anomaly, 100, 101, fig., 102 *et seq.*
- Ross (Co. Clare), sand volcanoes at, 443 map, 448-51, fig., 452 fig., pls. xxxiv & xxxv.
- ROTHSTEIN, A. T. V., the Dawros peridotite, Connemara, Eire, 1-24, figs., pls. i-v, 25.
- RUTLAND, R. W. R., discusses Clifford's paper, 88.
- St. John's Point (Donegal), Ballyshannon Group at, 148-50, map.
- Sand volcanoes, Co. Clare, 441-54, 455-60, figs., pls. xxxiv-xxxvi; experimental s.v., 454-5, pl. xxxvi.
- Sands & Gravels (Lower & Middle), S. Birmingham, 224, 226, 229, 231 *et seq.*; glacial, in Madeley area, 414 map, 415-6.
- Sandstones, Carboniferous, of Donegal syncline, source of, 164-5.
- Schists, Dawros, 4, 18, 19, 20; petrography of, 16-17.
- Scordale gravity anomaly, 100, 105.
- Seatown (Dorset), sect. in Middle Lias to Watton cliffs, 189-94, fig.
- Sericitization in rocks around Shap Granite, 214-5, 219, 220.
- Sgũman Coimntich fold, Ross, 75 map, 77.
- Sgũrr an Airdig syncline (Ross), 62 *et seq.*, 75 map, 76-7; succession in, 59, 67; interpretation of, 69-72.
- SHACKLETON, R. M., downward-facing structures of the Highland Border, 361-89, figs., pls. xxx-xxxii, 391-2.
- Shalwy Beds, Donegal syncline, 147 map, 148, 152, 153.
- Shap Blue Rock Quarry, 208, 209, 213, 214, 217; garnet-bearing veins in, 209, 213, pls. xviii & xix.
- Shap Granite, fissure metasomatism adjacent to, 205-22, figs., pls. xviii & xix.
- Shen, Glen (Perth), structures in Dalradian at, 372.
- SHIRLEY, J., discusses paper by George & Oswald, 180.

- SHOTTON, F. W., reads Pickering's paper, 223, 239; discusses Yates & Moseley's paper, 426-7.
- Siliceous Granulitic Schist Series (Moinian), Kintail, 59, 62-3, chem. anal., 67 *et seq.*
- SIMPSON, I. M., discusses paper by George & Oswald, 180.
- Slieve League (Donegal), Ballyshannon Group at, 157.
- Slumps, Co. Clare, sand volcanoes on, 441-60, figs., pls. xxxiv-xxxvi.
- SOLOMON, J. D., discusses Pickering's paper, 238.
- South Wales Coalfield (part of), basal Coal Measures of, 461-86, figs.
- Starfish Bed, Golden Cap, 186, 187, 188, 189, 194.
- STEWART, F. A., discusses Firman's paper, 221.
- Still-water Deposits (Middle & Upper), S. Birmingham, 224, 226, 227, 228-9, 231 *et seq.*
- Stonehaven (Kincardine), coast sect. in Dalradian near, 366, 367 fig., 379.
- Stonesdale (Lower) cyclothem, Cotherstone, 37 fig., 40-2; Upper S. cyclothem, 41 fig., 42-6, map, faunal lists.
- Structures in Dalradian of Highland Border, attitude of, 361-92, figs., pls. xxx-xxxii.
- STUBBLEFIELD, C. J., discusses paper by Leitch & others, 484.
- Stublick fault system, 95; gravity anomaly across, 107-8, fig.
- SUTTON, J., discusses Clifford's paper, 85-6; Johnson's paper, 266; Ramsay's papers, 307, 521; Shackleton's paper, 390.
- Swindale Beck fault, 95.
- Tawe valley (S. Wales), basal Coal Measures in, 467, 470.
- Tay nappe, relation of Highland Border structures to, 383-7, figs.
- TAYLOR, J. H., discusses Love's paper, 438; Gill & Kuenen's paper, 459.
- Tectonic control in magma chemistry, 324-5.
- Tern lake & ice-retreat stage, Madeley area, 420.
- Tertiary structure of Cotherstone syncline, 50, pl. vii.
- THOMAS, G., discusses Gill & Kuenen's paper, 457-8.
- Thorncombe Sands, Dorset coast, 191, 192, 193.
- Three Tiers, Dorset coast, 186, 187, 188.
- TILLEY, C. E., problems of alkali rock genesis, 323-60, figs., pls. xxiv-xxix.
- Torridonian, Coulin Forest, 243 fig., 245, 252 fig., 253 fig.
- Trace elements in Cleengort Schists, 403-4.
- Tragophylloceras loscombi*, 194-5, pl. xvii.
- TROTTER F. M., 54; discusses papers by Bott & Masson-Smith, 129-30; by Leitch & others, 484.
- Tynehead gravity anomaly, 100, 103, 105.
- Underset Limestone. *See* Four Fathom.
- Upper Felltop cyclothem, Cotherstone, 45 fig., 46-7.
- Viséan (lower), Donegal syncline, facies relations of, 175 fig.
- Volcanic rocks around Shap Granite, fissure metasomatism in, 205-22, figs., pls. xviii & xix.
- WALKER, D., report on pollen in Madeley clay, 416.
- Wall-rocks, Shap Granite, alteration of, 212-3, 216-7.
- Warkworth-Gilsland magnetic anomaly, 127-8, fig.
- WATSON, I. J., discusses papers by Bott & Masson-Smith, 134.
- Watton cliffs (Dorset), sect. in Middle Lias to Seatown, 189-94, fig.
- Weardale (concealed) granite, 100-7, figs., 124.
- Wehrlic rock in Dawros peridotite, 11-12, pl. i.
- WELLS, M. K., discusses Ramsay's paper, 521.
- Wensleydale magnetic anomaly, 127.
- WHITEMAN, A. J., & E. G. POOLE, discuss Yates & Moseley's paper, 425-6.
- Whitmore (Staffs.) trough, 410 map, 411, 412 sect.
- WILLS, L. J., discusses Pickering's paper, 237-8.
- WILSON, G., discusses Johnson's paper, 267.
- Woore (Staffs.) moraine, 420, 422-3.
- Wrinehill (Staffs.) moraine, 420, 423-4.
- YATES, E. M. (& F. MOSELEY), glacial lakes & spillways in the vicinity of Madeley, Shropshire, 409-25, figs., 427-8.
- York River (Ontario) nepheline belt, 340 map, 341-56, figs., chem. anal., pls. xxiv-xxix.
- Yorkshire coast, Domerian of, 200, 201.