

- Pentamerella arata, 581, 590
 Pentamerids, 574
 Pentameroceras mirum, 551
 Pentamerus, 425§, 550, 552, 562, 568; borealis, 568; brevirostris, 569; caudatus, 567; comis, 601; conchidium, 552, 569; fornicatus, 563; galeatus, 560*, 562, 563, 567, 568, 569, 626, 628; globosus, 520; Knightii, 551, 564*, 565, 567, 568, 569; laevis, 569; oblongus, 520, 545, 546*, 550, 551, 552, 567, 568, 569; occidentalis, 551; pseudogaleatus, 560*, 561, 562; undatus, 520; Verneuilii, 561*
 Pentamerus, Lower, 585; Upper, 585
 Pentremites, 490§, 585, 590
 Pentremites, 597, 601, 602, 641; Godoni, 640*, 646; ovalis, 626; pyriformis, 640*, 646
 Pentremital group, 637
 Peoquop Range, 365
 Peperino, 80§
 Peralesites, 789*
 Peramus, 789*
 Peraspalax, 789*
 Perch, 812, 879; family, 862, 901
 Percharus, 918
 Pericentric stratification, 99
 Peridot, 67§
 Peridotyte, 89§
 Perihelion and aphelion, changes of, 254
 Period, 406§
 Peripatus, 723
 Periptychus, 917
 Perisphinctes, 749, 760; Colfaxi, 760; Mühlbachi, 760; virguliformis, 760
 Perlyte, 122
 Permian period, 660, 689, 690; foreign, 697, 704
 — in India, etc., supposed to be glacial, 698; emergence of Antarctic land, 737
 Permo-Carboniferous, 685§, 687
 Perna maxillata, 378; mytiloides, 790
 Perry sandstone, 594, 606
 Persia, plateau of, 26; Cretaceous in, 857; Tertiary in, 920
 Persian Gulf, 41
 Perthite, 321
 Peru, 41, 51, 213, 222; volcanoes of, 296; Cretaceous in, 857, 867; Tertiary, 935
 Peruvian islands, 153
 Petalite, 449
 Petalodonts, 643, 647, 705
 Petalodus, 680, 692; curtus, 643; destructor, 680*, 692
 Petralia, 515, 520, 567; bina, 520, 567; profunda, 517
 Petricola, 157; centenaria, 917
 Petrifications, 131, 135, 143
 Petrified forests, 135
 Petrodus, 692; occidentalis, 680*, 692
 Petroleum, 522, 555, 661
 Petrosilix, 84§
 Petschora-land, 776
 Phacoceras, 675; Dumbli, 675, 676*, 691
 Phacops, 422§, 520, 521, 551, 561, 568, 570, 579, 586, 591, 599, 626; bufo, 599*; callicephalo, 515; caudata, 567, 568; Downingii, 565*, 567, 573; elegans, 568; fecunda, 568, 570; granulata, 625; latifrons, 625, 626, 627; Loganii, 561*; longicaudata, 567; nupera, 614; rana, 592, 599*, 614; Stokesi, 567; trisulcata, 550
 Phænogams, 434-435, 595; Neopaleozoic, 460
 Phæthonides, 591, 643; occidentalis, 614; spinosus, 614
 Phalangida, 691
 Phaneropleuron, 418, 621, 625; curtum, 617*, 619, 621
 Pharella Dakotensis, 855
 Phascolestes, 789
 Phascolotherium, 789*; Bucklandi, 789*
 Phasma, 677
 Phenacodus, 903, 910, 917, 918, 925; primævus, 903*
 Phenocryst, 77§
 Philippine Islands, 296 (volcanoes), 297, 920, 921
 Phillipsastrea, 718; gigas, 590; Verneuilii, 584*, 585, 590
 Phillipsia, 521, 643, 676, 686, 700; Cliftonensis, 691; major, 691; Missouriensis, 691; scitula, 691; seminifera, 700*
 Phillipsite, 136, 144
 Phlegethontia, 692; linearis, 682
 Phlegrean Fields, volcanic region of, 293
 Phlogopite, 65§
 Phlyctenaspis Acadica, 616*, 618
 Phoberus cæcus, 59
 Phœnicites, 921
 Phoenix Islands, 20
 Pholadella, 621
 Pholadomya, 759, 780; abrupta, 917; cuneata, 925; fiducula, 790; Lincenumi, 855; Marylandica, 915; multicostata, 791; ovulum, 791; papyracea, 855
 Pholas, 157, 158; alatoidea, 915; crispata, 983
 Phonolyte, 85§; columnar, 263*, 264*; solubility, 122
 Phos Texanus, 916
 Phosgenite, 335
 Phosphates, 63, 69
 Phosphatic concretions, 73, 493, 891; deposits, 153; fossils, 314, 487
 — rock-material, 72-74, 141
 Phosphoric acid, 69, 72, 73, 74, 75, 153, 241, 663
 Phosphorite beds of Queroy, 926
 Phosphorus, 62, 68§, 123; in mineral coal, 663
 Phragmites Alaskanus, 839
 Phragmoceras, 567; parvum, 551
 Phragmodictya, 646
 Phrynus, 724
 Phthanocoris, 722; occidentalis, 691
 Phthyanite, 82§
 Phylloceras, 793, 794; ptycholeum, 791
 Phyllograptus, 470, 520; Anna, 500; typus, 498*
 Phyllopora, 421§, 439§; Cambrian, Lower, 474*; Cambrian, Middle, 476, 477*; Chemung, 614, 615*; Corniferous, 586; Hamilton, 599, 600*; Lower Silurian, 521; Paleozoic, 720; Subcarboniferous, 643
 Phyllyte, 80§, 89§
 Physa, 152; heterostropha, 682
 Physeter, 912, 927
 Physiographic chart of the world, 46, 47*, 350
 Physiographic geology, 14§, 15
 Physospongia, 639, 646
 Phytolitharia, 163, 164*
 Phytopsis cellulosa, 505
 Pichincha (Mt.), 26, 296
 Pickwell Down beds, 625
 Picotite, 88
 Picroyte, 88§
 Pictured rocks, 94*, 464, 465*
 Piedmont region, 24, 443
 Pigeons, 54
 Pikerim beds, 927
 Pike's Peak, 811, 876
 Pileworm, 158
 Piloceras, 520, 573; Canadense, 501; Wortheni, 501
 Pilton beds, 625
 Pilularia globulifera, 436*
 Pinacoceras Metternichi, 774; parma, 774
 Pine, 435, 436, 667, 668, 777, 859
 Pine Mountain, Ky., 543, 657
 — River, 746
 Pinite, 68§, 318, 320
 Pinites, 704, 777
 Pinna, 129, 760; affinis, 925; decussata, 866; expansa, 759*; Missouriensis, 647; Mulletti, 865; peracuta, 690
 Pinnularia æqualis, 164*, 165; borealis, 164*, 165; peregrina, 437*, 894*; viridis, 164*, 165; viridula, 164*, 165
 Piñon Range, 365, 733
 Pinus, 853, 922; abies, 74; succinifer, 922
 Pinyte, 84§
 Pipestone quartzite, 463
 Pisolite, 96*§
 Pisolithic limestone, 859
 Pit River, 747, 749, 809
 Pitchstone, 84§
 Pithecanthropus erectus, 1036
 Pitt, Mt., 296
 Pittsburg coal-bed, 653
 Placenticeras Gundalupæ, 855; placenta, 841, 842*, 854, 855
 Placoderms, 417; Trenton, 509
 Placodus, 773
 Placoparia, 520, 521
 Placuna scabra, 854
 Placunnopsis, 690
 Pläner (Lower), 866; (Middle), 866
 Plagiolax, 763, 789, 864; minor, 759*
 Plagioclase, 64§
 Plaisancian beds, 927
 Planation, 167§, 169, 219, 221*
 Plane tree, 881, 922