Norfolk, Virginia, Dismal Swamp in, 183 Notes of music, 142

OIL, its heat and light, 47
Oils in coal, 188, 189
——in plants, 154, 159, 189
Orange-cells, 154
Orchis mascula, its structure, 231
Otoliths, or ear-stones, 139
Oxygen in air, 53
Orules of plants, 163

PAN-PIPES, 145 Paper, pressure of air on square inch of, 60° Paraffin from coal, 189 Peat, formation of, 184 Petrifactions, 115 Pelargoniums, 222 Pennine Hills causing rainfall, 81 Peter Bell on a primrose, 7 Phosphoric acid, 53 Phosphorus burning in air, 53 Photography, 47 Pimpernel, closing for rain, 217 Plant-cells, 155 Plant, food of a, 156 - water rising in a, 157 Plants absorbing rain, 81 — annual and perennial, 16r - contrivances for protection in, 219 - effect of light on, 45 --- fertilized by wind, 215 --- in a coal-mine, 174 - light and heat imprisoned in, ŧ6á Poker, sound of a vibrating, 128 Pollen-dust carried by bees, 215 - of flowers, 227, 229

Pollen, gathering of. 201 - use of, 164 Pollinia of an orchis, 231 Polyps, coral, 21 Poole's Cavern, 115 Popgun, compressing air in, 57 Potash formed, 17 Potassium in water, 16 Pot-holes, 100 Pressure, making coal hard, 187 Primrose, corolla falling off, 167 Protoplaśm, 155 - green granules of, 157 Primrose, the life of a, 150 - two forms of, 163 Princess-bees, slaughter of, 208 Prism giving coloured light, 39 Propolis, or bee-cement, 297

QUEEN-BEE, flight of, 202
—— laying eggs, 203
Queenstown, cliffs at, 110

RAIN, causes of, 79, 80

— fairies working in, 8

— fall of barometer before, 66
Ravine worn by water, 107
Reflection of light, 43
Resonance in a jar, 145
Rhine, amount of lime carried by, 106
Roches moutonnées, 121
Rock hurled by waves, 117

ST. JOHN'S WOOD, explosion in, 133
St. Paul's railings of Sussex iron, 191
—, Niagara falls only half the height of, 100
Salvia, bee entering the, 225
Sap of plants, 157