

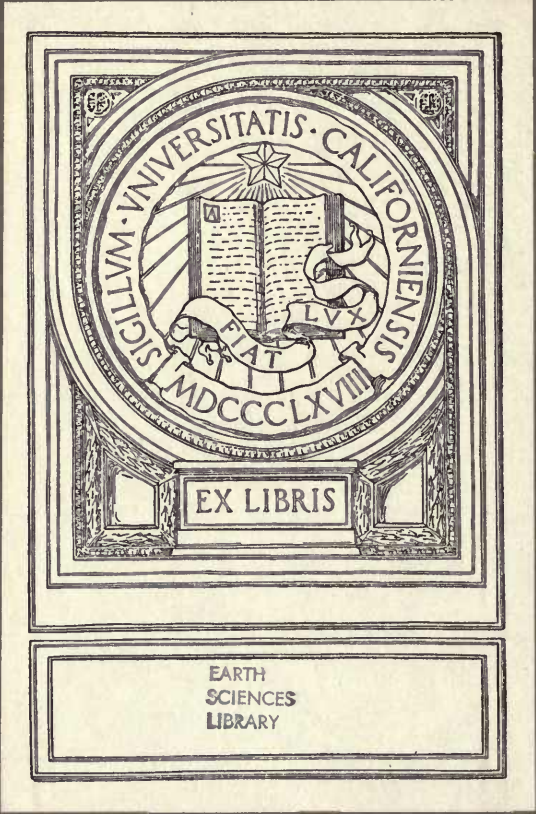
UC-NRLF

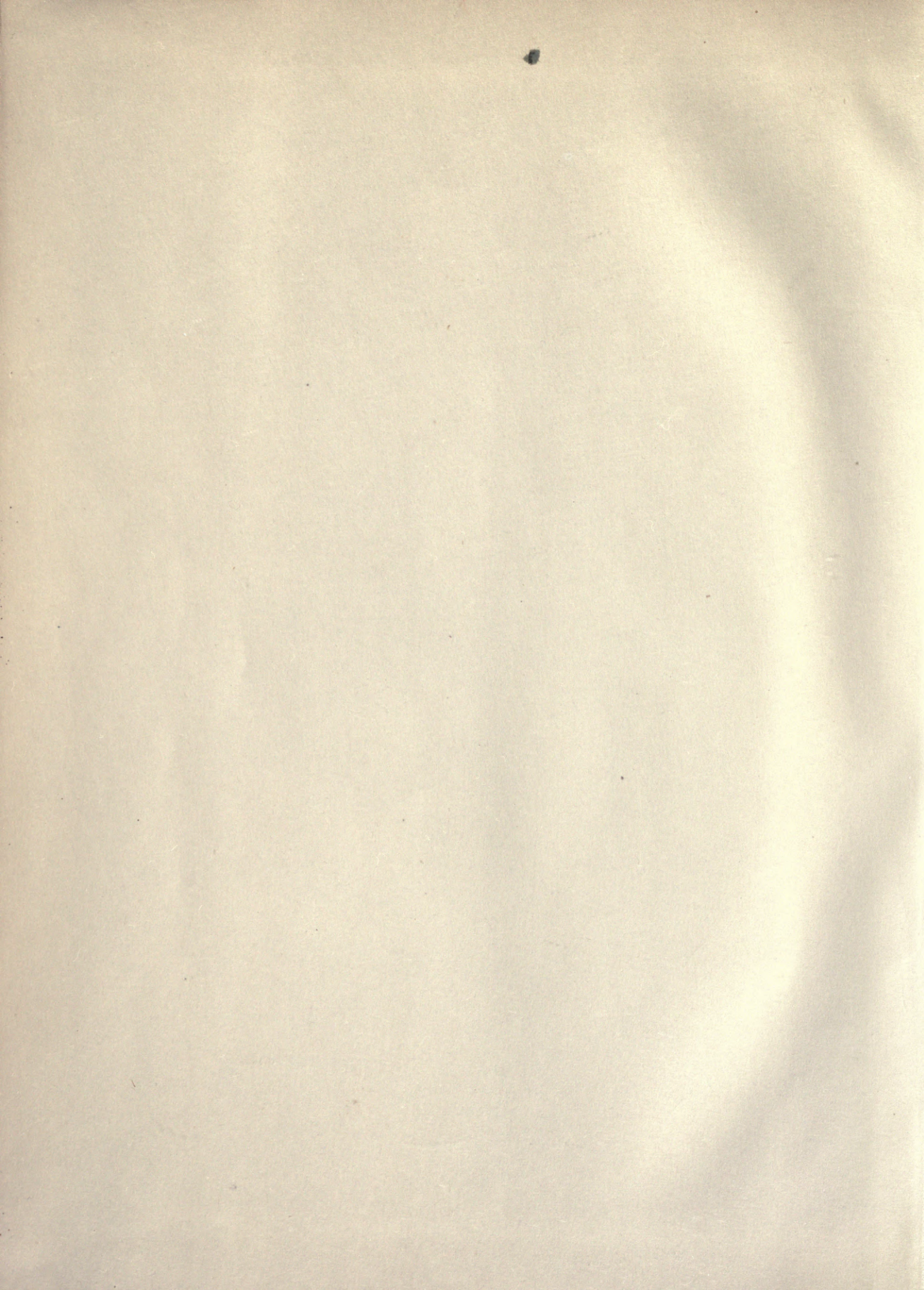


B 4 175 698

BERKELEY
LIBRARY
UNIVERSITY OF
CALIFORNIA

EARTH
SCIENCES
LIBRARY





PRICE FIVE SHILLINGS.

LITHOLOGY;

OR,

CLASSIFICATION OF ROCKS,

WITH THEIR

ENGLISH, FRENCH, AND GERMAN NAMES,

AND THE MOST IMPORTANT

MINERALS.

UNIV. OF
CALIFORNIA

BY

PHILIP HENRY LAWRENCE,

ACCORDING TO THE SYSTEM OF

BERNHARD VON COTTA.

LONDON:

LONGMANS, GREEN, READER, AND DYER,
PATERNOSTER ROW.

1865.

TO THE
ASSOCIATION

65
1/2

LITHOLOGY;

OR,

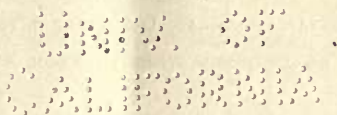
CLASSIFICATION OF ROCKS,

WITH THEIR

ENGLISH, FRENCH, AND GERMAN NAMES,

AND THE MOST IMPORTANT

MINERALS.



BY

PHILIP HENRY LAWRENCE,

ACCORDING TO THE SYSTEM OF

BERNHARD VON COTTA.

LONDON:

LONGMANS, GREEN, READER, AND DYER,

PATERNOSTER ROW.

1865.

QE425

L3

EARTH
SCIENCES
LIBRARY

COX AND WYMAN,
ORIENTAL, CLASSICAL, AND GENERAL PRINTERS,
GREAT QUEEN STREET, LONDON, W.C.

71111

CLASSIFICATION OF MINERALS.

I.	Oxygen Compounds	<i>Page</i> 5
	A. Oxides of Silicon and Aluminum (Earths)	5
	B. Silicates	5
	a. Felspar Section... .. .	5
	Plagioclastic Felspars	6
	Leucite and Nepheline Group	6
	b. Augite Section	6
	c. Mica Section	7
	d. Hydrous Magnesia Silicates (Talc Section)	8
	e. Zeolite Section (Non-Magnesian Hydrous Silicates)	8
	Andalusite Section	9
	Garnet Section	10
	C. Tantalates, Titanates, Vanadates	11
	D. Sulphates.	11
	E. Borates	12
	F. Phosphates	12
	G. Nitrates	12
	H. Carbonates	13
	I. Oxides of the Elements of the Hydrogen Group	13
II.	Fluorids and Chlorids	14
III.	Sulphurets, Arseniurets	14
IV.	Native Elements	15
V.	Resins, Organic Compounds	15

MINERALS.

I. OXYGEN COMPOUNDS.

A. Oxides of Silicon and Aluminium (Earths).

1. Quartz. Si

Quarz.

Quartz.

(a) Common Quartz.

Quarz.

Quartz *hyalin.*

(b) Amethyst.

Amethyst.

Amethyste.

(c) Chalcedony.

Chalcedon.

Chalcedoine.

(d) Agate.

Achat.

• Agate.

(e) Jasper.

Jaspis.

Jaspe.

(f) Flint.

Feuerstein.

Silex.

(g) Chert.

Hornstein.

Chert.

2. Opal. Amorphous Si with H

Opal.

Opale.

3. Corundum. Al with Mg, Ca, Si

Korund.

Corindon.

B. Silicates.

(a) Felspar Section.

4. Orthoclase. K Si + Al Si³ with 65Si,

Orthoklas. 18Al & 17K

Orthose.

(a) Adularia.

Adular.

Adulaire.

(b) Common Felspar (Pegmatolite Microcline).

Gemeiner Feldspath (Pegmatolit-Mikroklin).

Feldspath lamelleux.

(c) Sanidine.

Sanidin.

Feldspath vitreux.

(d) Compact Felspar (Felstone).

Dichter Feldspath (Feldstein).

Feldspath compacte.

Obsidian and Pumice-stone.

Obsidian und Bimsstein.

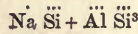
Obsidienne et Ponce.

Plagioclastic Felspars.

5. Albite.

Albit.

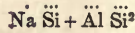
Albite.



6. Oligoclase.

Oligoklas.

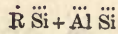
Oligoclase.



7. Labradorite.

Labrador.

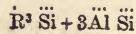
Labradorite.



8. Anorthite.

Anorthit.

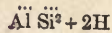
Anorthite.



9. Kaolin.

Kaolin.

Kaolin.

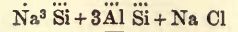


Leucite and Nepheline Group.

10. Sodalite.

Sodalit.

Sodalite.



11. Lapis Lazuli (Ultramarine).

Silicate of $\underline{\text{Al}}$ with Na & Ca & Na S

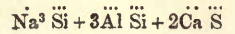
Lapis Lazuli.

Lapis Lazuli.

12. Hauyne.

Hauyn.

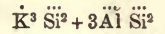
Hauyne.



13. Leucite.

Leucit.

Amphigène.



14. Nepheline (Davyne, Elæolite).

(Na K) $^2 \ddot{\text{Si}} + 2\underline{\text{Al}} \ddot{\text{Si}}$ (with small quantity of Fe & Ca)

Nephelin (Davyn, Elæolith).

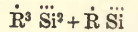
Néphéline.

(b) Augite Section.

15. Amphibole, Hornblende.

Amphibol (Hornblende).

Amphibole (Hornblende).



(a) Tremolite (Grammatite Calamite).

Tremolit.

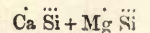
Trémolite.

(b) Actinolite (Strahlstein, Glassy

Actinolite).

Aktinolith.

Actinote.



- (c) Hornblende (proper).
Hornblende.
Hornblende.
- (d) Uralite.
Uralit.
Ouralite.
- (e) Asbestos and Amianthus
(Mountain Leather).
Asbest und Amianth.
Asbeste (Amiante).
- (f) Nephrite.
Nephrit.
Néphrite.
16. Pyroxene (Augite). $R^3 Si^2$
Pyroxen (Augit).
Pyroxène.
- (a) Diopside.
Diopsid.
Diopside.
- (b) Sahlite.
Sahlit.
Salite.
- (c) Augite.
Augit.
Augite.
- (d) Omphazite.
Omphazit.
Smaragdite.
- (e) Hypersthene (Paulite).
Hypersthen (Paulit).
Hypersthène.

Appendix.

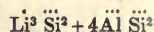
Diallage (Smaragdite).
Diallag (Smaragdit).
Diallage.

Schiller-spar.
Schiller-Spath.
Bastite.

Palagonite.
Palagonit.
Palagonite.

Green Earth.
Grünerde.
Terres Vertes.

17. Spodumene (Triphane).



Spodumen (Triphan).
Triphane.

Killinite.
Killinit.
Killinite.

(c) Mica Section.

18. Potash Mica (Phengite, Muscovite,
Biaxial Mica). $m Al Si + K Si$
Kali Glimmer (Phengit, &c.).
Mica Potassique.

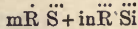
Damourite, Margarodite.
Damourit, Margarodit.
Damourite.

Sericite.

Sericit.

Séricite. K. List.

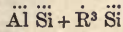
19. Lithia Mica (Lepidolite, Lithionite).



Lithion Glimmer (Lepidolith, Lithionit).

Lepidolite.

20. Magnesia Mica (Biolite, Uniaxial Mica).



Magnesia-Glimmer.

Mica Magnésien.

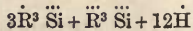
Rubellan and Phlogophite.

Rubellan und Phlogopit.

Rubellane.

(d) **Hydrous Magnesia Silicates**
(Talc Section).

21. Chlorite (Ripidolite).



Chlorit (Ripidolith).

Chlorite.

Delessite.

Delessit.

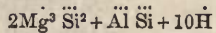
Delessite.

Pennine, Ripidolite, Clinochlore.

Pennin, Ripidolith, Klinochlor.

Pennine.

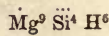
22. Saponite (Soap-stone).



Saponit (Seifenstein).

Pierre de Savon.

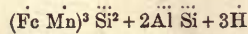
23. Serpentine.



Serpentin.

Serpentine.

24. Ottrelite.



Ottrelit.

Ottrelite.

25. Glauconite.

Hydrous Silicate of Fe & K

Glaukonit.

Glauconie.

26. Talc.



Talk.

Talc.

(a) Foliated Talc.

Blätter-Talk.

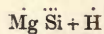
Talc lamelleux.

(b) Steatite.

Steatit (Speckstein).

Stéatite.

27. Meerschaum.



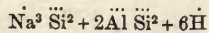
Meerschaum.

Magnésite (Ecume de Mer).

(e) **Zeolite Section (Non-Magnesian Hydrous Silicates).**

Monometric.

28. Analcime.



Analcim.

Analcime.

29. Apophyllite. $8\text{Ca} \ddot{\text{Si}} + \text{K} \ddot{\text{Si}}^2 + 16\text{H}$
Apophyllit (Ichthyophthalm, Albin).
Apophyllite.

Hexagonal.

30. Chabasite (Phacolite).
 $(\text{Ca Na K})_3 \ddot{\text{Li}}^2 + 3\text{Al} \ddot{\text{Si}}^2 + 18\text{H}$
Chabasit (Phacolith).
Chabasie.

Trimetric.

31. Prehnite. $\text{Ca}^2 \ddot{\text{Si}} + \text{Al} \ddot{\text{Si}} + \text{H}$
Prehnit.
Prehnite.

32. Thomsonite, Comptonite.
 $(\text{Ca Na})^3 \ddot{\text{Si}} + 3\text{Al} \ddot{\text{Si}} + 7\text{H}$
Thomsonit, Comptonit.
Thomsonite.

33. Natrolite (Soda Mesotype).
 $\text{Na} \ddot{\text{Si}} + \text{Al} \ddot{\text{Si}} + 2 \text{H}$
Natrolith (Natron-Mesotyp, Spreu-
stein).
Natrolite.

34. Phillipsite (Lime Harmotome).
 $(\text{Ca K}) \ddot{\text{Si}} + \text{Al} \ddot{\text{Si}}^2 + 5\text{H}$
Phillipsit (Kalk-Harmotom).
Phillipsite.

35. Harmotome (Baryt Harmotome,
Staurolite). $\text{Ba} \ddot{\text{Si}} + \text{Al} \ddot{\text{Si}}^2 + 5\text{H}$
Harmotom (Baryt - Harmotom,
Kreuzstein).
Harmotome.

Monoclinic.

36. Laumontite (Lomonite).
Laumontit. $\text{Ca}^2 \ddot{\text{Si}}^2 + 3\text{Al} \ddot{\text{Si}}^2 + 12\text{H}$
Laumontite.

37. Scolecite. $\text{Ca} \ddot{\text{Si}} + \text{Al} \ddot{\text{Si}} + 3\text{H}$
Skolezit (Kalk-Mesotyp).
Scolésite.

38. Heulandite (Foliated Zeolite, Stil-
bite in part). $\text{Ca} \ddot{\text{Si}} + \text{Al} \ddot{\text{Si}}^2 + 5\text{H}$
Heulandit (Blätter-Zeolith, Stil-
bit).
Heulandite.

39. Stilbite (Desmine, radiated Zeolite).
 $\text{Ca} \ddot{\text{Si}} + \text{Al} \ddot{\text{Si}}^2 + 6\text{H}$
Stilbite (Desmin, Strahl-Zeolith).
Stilbite.

40. Calamine (Hydrous Silicate of
Zinc). $2 \text{Zn}^2 \ddot{\text{Si}} + 3\text{H}$
Calamin (Kieselzinkerz, Galmei
in part).
Calamine.

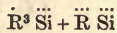
(f) Andalusite Section.

41. Andalusite (Chiastolite). $\text{Al}^3 \ddot{\text{Si}}^2$
Andalusit (Chiastolith, Hohlspath).
Andalousite.

42. Topaz. $6\text{Al}^3 \ddot{\text{Si}}^2 + (3\text{Al F}^3 + 2\text{Si F}^2)$
Topas.
Topaze.

- Pyknite.
Pyknit.
Pycnite.
43. Staurotide (Staurolite). $(\underline{\text{Al}} \underline{\text{Fe}})^2 \ddot{\text{Si}}$
Staurolith.
Staurotide.
44. Kyanite (Disthene Rhätizite).
 $\underline{\text{Al}}^3 \ddot{\text{Si}}^2$ with little $\underline{\text{Fe}}$
Cyanit (Disthen, Rhätizit).
Disthène.
45. Lievrite (Ilvaite, Yenite).
 $2 \text{Fe}^3 \ddot{\text{Si}} + \text{Ca}^2 \ddot{\text{Si}} + \text{Fe}^2 \ddot{\text{Si}}$
Lievrit (Ilvait, Yenit).
Ilvaïte.
46. Tourmaline (Schörl). $\ddot{\text{Si}}, \ddot{\text{B}}, \ddot{\text{P}}, \text{Fl},$
 $\text{K}, \text{Na}, \text{Li}, \text{Ca}, \text{Mg}, \text{Fe}, \text{Mn}, \underline{\text{Al}}, \underline{\text{Fe}}, \underline{\text{Mn}}$
Turmalin (Schörl).
Tourmaline.
- (g) Garnet Section.
47. Chrysolite (Olivine, Peridot).
 $(\text{Mg Fe})^3 \ddot{\text{Si}}$ with some $\text{Mn}, \text{Ca}, \text{Ti},$ and $\underline{\text{H}}$
Chrysolith (Olivin, Peridot).
Péridot.
48. Beryl (Emerald, Smaragd).
 $\underline{\text{Be}} \ddot{\text{Si}}^2 + \underline{\text{Al}} \ddot{\text{Si}}^2$ with some $\underline{\text{Fe}}$ & $\underline{\text{Cr}}$
Beryll (Smaragd).
Emeraude.
- Phenacite. $\underline{\text{Be}} \ddot{\text{Si}}$
Phenakit.
Phénacite.
49. Garnet. $\text{R}^3 \ddot{\text{Si}} + \underline{\text{R}} \ddot{\text{Si}}$
Granat.
Grenat.
- Almandine, Grossularite, Essonite, Aplome, Colophonite, Melanite.
50. Pyrope Magnesian Alumina Garnet
Pyrop. with Fe & $\underline{\text{Cr}}$
Pyrope.
51. Zircon (Hyacinth).
 $\underline{\text{Zr}} \ddot{\text{Si}}$ with little $\underline{\text{Fe}}$
Zirkon (Hyacinth).
Zircon.
52. Idocrase (Vesuvian, Egeran, Wilnite). $\text{R}^3 \ddot{\text{Si}} + \underline{\text{R}} \ddot{\text{Si}}$
Idocras (Vesuvian, Egeran, Wilnit).
Idocrase.
53. Skapolite (Wernerite).
 $\text{R}^3 \ddot{\text{Si}}^2 + 2 \underline{\text{Al}} \ddot{\text{Si}}$ with $\text{Ca}, \text{Na},$ some $\underline{\text{H}}$ & $\underline{\text{Fe}}$
Skapolith (Wernerit).
Wernérite.
- Meionite, Melilite.
Mejonit, Melilith.
Meïonite.
54. Epidote (Pistacite, Zoisite).
 $\text{R}^3 \ddot{\text{Si}} + 2 \underline{\text{R}} \ddot{\text{Si}}$
Epidot (Pistazit, Zoisit).
Epidote.

55. Orthite (Allanite, Cerine).



Orthit (Allanit, Cerin).

Orthite.

56. Gadolinite.



Gadolinit.

Gadolinite.

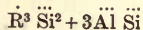
57. Axinite (Thumite).



Axinit (Thumer-Stein).

Axinite.

58. Cordierite (Dichroite, Peliom Iolite).



Cordierit (Dichroit, Peliom, Folith).

Cordierite.

Fahlunite, Pinite.

Fahlunit, Pinit.

Pinite.

Liebnerite and Oosite.

Liebnerit.

Liebénérite.

C. Tantalates, Titanates, Vanadates.

59. Pyrochlore. $(\text{Ca Fe Ce Mn}) (\text{Ta, Ti})$

Pyrochlor. with some Na F & H

Pyrochlore.

60. Perovskite. Ca Ti with little Fe

Perowskit.

*Pérowskite.*61. Tantalite. $(\text{Fe Mn}) (\text{Ta Cb})$ with some

Tantalit. Ca and up to 16 p.c. of Sn.

Tantalite.

62. Columbite (Niobite).

 $(\text{Fe Mn})^2 \text{Ta}^2$ with little Ca & Sn

Columbit (Niobit).

Columbite.

63. Wohlerite. Silicate of Ca, Na, Ta, Zr

Wöhlerit.

Wöhlerite.

64. Titanite (Sphene, Menachine ore).

 $\text{Ca}^3 \text{Si} + \text{Ti}^3 \text{Si}$

Titanit (Sphen, Menakerz).

Sphène.

Greenovite.

Greenovit.

*Greenovite.*65. Volborthite. $(\text{Cu Ca})^4 \text{V} + \text{H}$

Volborthit.

Volborthite (Civre vanadiaté).

D. Sulphates.

66. Barytes (Heavy Spar). Ba S

Baryt (Schwerspath).

Barytine.

67. Celestine. Sr S

Cölestin.

Célestine.

68. Anhydrite (Muriacite, Karstenite). Ca S

Anhydrit (Muriacit, Karstenit).

Anhydrite.

69. Glauberite. $\text{Na} \ddot{\text{S}} + \text{Ca} \ddot{\text{S}}$
 Glauberit.
Glauberite.

70. Gypsum (Alabaster Selenite).
 Gyps (Alabaster). $\text{Ca} \ddot{\text{S}} + 2\text{H}$
Gypse.

71. Alunogen (Hair Salt). $\ddot{\text{Al}} \ddot{\text{S}}^3 + 18\text{H}$
 Alunogen (Keramohalit, Haarsalz).
Alunogène.

72. Native Alum. $\text{R} \ddot{\text{S}} + \ddot{\text{Al}} \ddot{\text{S}}^3 + 24\text{H}$
 Alaun.
Alun.

73. Epsomite (Epsom Salt).
 $2\text{Mg} \ddot{\text{S}} + 7\text{H}$
 Epsomit (Bittersalz).
Epsomite.

74. Glauber Salt (Mirabilite).
 $\text{Na} \ddot{\text{S}} + 10\text{H}$
 Glaubersalz (Mirabilit).
Soude sulfatée.

75. Alunite (Alum-stone).
 $\text{K} \ddot{\text{S}} + 3\ddot{\text{Al}} \ddot{\text{S}}^3 + 6\text{H}$
 Alunit (Alaunstein).
Alunite.

E. Borates.

76. Boracite. $\text{Mg}^3 \ddot{\text{B}}^4$
 Boracit.
Boracite.

77. Borax (Tinkal). $\text{Na} \ddot{\text{B}}^2 + 10\text{H}$
 Borax (Tinkal).
Soude boratée.

F. Phosphates.

78. Apatite, Spargelstein, Phosphorite.
 $3\text{Ca}^2 \ddot{\text{P}} + \frac{1}{2}\text{Ca} (\text{Cl}, \text{F})$
 Apatit (Spargelstein, Phosphorit).
Apatite.

79. Turquoise (Calaite). $\ddot{\text{Al}}^2 \ddot{\text{P}} + 5\text{H}$ with
 Kalait (Turkis). some Cu
Turquoise.

80. Vivianite (Blue Iron-Earth).
 $\text{Fe}^3 \ddot{\text{P}} + 8\text{H}$
 Vivianit (Blaueisenerde).
Vivianite.

81. Wavellite (Lasionite).
 $(\ddot{\text{Al}}^4 \ddot{\text{P}} + 18\text{H}) + \frac{1}{2}\text{Al F}$
 Wavellit (Lasionit).
Wavellite.

G. Nitrates.

82. Nitre (Saltpetre). $\text{K} \ddot{\text{N}}$
 Kalisalpeter (Salpeter).
Potasse nitratée.

83. Nitratine (Chili Saltpetre). $\text{Na} \ddot{\text{N}}$
 Natronsalpeter (Chilisalpeter).
Nitratine.

H. Carbonates.

84. Calcspars (Calcite). $\text{Ca } \ddot{\text{C}}$
 Kalkspath (Calcit, Doppelspath).
Calcite.

85. Magnesite (Talc Spar). $\text{Mg } \ddot{\text{C}}$ with
 Magnesit (Talkspath). some Fe
Magnésie carbonatée.

86. Dolomite (Bitter Spar, Brown
 Spar, Ankerite). $\text{Ca } \ddot{\text{C}} + \text{Mg } \ddot{\text{C}}$
 Dolomit (Rauthenspath, Braun-
 und Bitterspath).
Dolomie.

87. Breunnerite. $\text{Fe } \ddot{\text{C}} + 2\text{Mg } \ddot{\text{C}}$
 Mesitinspath (Breunnerit).
Breunnérite.

88. Spathic Iron, Siderite.
 $\text{Fe } \ddot{\text{C}}$ with some Mn , Mg & Ca
 Eisenspath (Siderit).
Sidérose.

89. Zinc Spar (Smithsonite).
 $\text{Zn } \ddot{\text{C}}$ with little Fe , Mn , Ca , Mg
 Zinkspath (Smithsonit).
Smithsonite.

90. Aragonite.
 $\text{Ca } \ddot{\text{C}}$ often with some $\text{Sr } \ddot{\text{C}}$ & $\text{Ca } \text{F}$
 Aragonit (Aragon).
Aragonite.

91. Trona (Urao). $\text{Na}^2 \ddot{\text{C}}^3 + 4\text{H}$
 Trona (Urao).
Sesqui-carbonate de Soude.

92. Natron (Carbonate of Soda).
 $\text{Na } \ddot{\text{C}} + 10\text{H}$
 Natron.
Natron (Carbonate de Soude).

93. Malachite. $\text{Cu}^2 \ddot{\text{C}} + \text{H}$
 Malachit.
Malachite.

94. Azurite (Lasurite, Blue Copper).
 $\text{Cu}^3 \ddot{\text{C}}^2 + \text{H}$
 Azurit (Lasurit, Kupferlasur).
Chessylite.

I. Oxides of the Elements of the Hydrogen Group.

95. Spinel (Ceylonite, Pleonaste, Au-
 tomolite, Gahnite). $\text{R } \ddot{\text{Al}}$
 Spinell (Ceylanit, Pleonast, Auto-
 molit, Gahnit).
Spinelle.

96. Magnetic Iron Ore (Magnetite).
 $\text{Fe } \ddot{\text{Fe}}$ sometimes with some Mg
 Magneteisenerz (Magnetit, Mag-
 neteisenstein).
Magnétite.

97. Chromic Iron Ore (Chromite).
 $\text{Fe } \ddot{\text{Cr}}$ with Mg & $\ddot{\text{Al}}$ instead of some Fe & $\ddot{\text{Cr}}$
 Chromeisenerz (Chromit).
Chromite.

98. Hematite (Specular Iron, Red
 Iron Ore).
 $\ddot{\text{Fe}}$ sometimes with some $\ddot{\text{Ti}}$
 Rotheisenerz (Hematit).
Hématite rouge.

99. Titaniferous Iron Ore (Ilmenite).
 $\ddot{\text{Fe}} + \ddot{\text{Ti}}$ sometimes with $\ddot{\text{Fe}}$, $\ddot{\text{Mn}}$, or $\ddot{\text{Mg}}$
 Titaneisenerz (Ilmenit, Kibdelo-
 phan, Crichtonit).
Ilménite.
100. Braunite. $\ddot{\text{Mn}}$, or $\ddot{\text{Mn}} \ddot{\text{Mn}}$
 Braunit.
Braunite.
101. Hausmannite (Braunstein). $\ddot{\text{Mn}} \ddot{\text{Mn}}$
 Hausmannit (Braunstein).
Hausmannite.
102. Polianite, Pyrolusite. $\ddot{\text{Mn}}$
 Polianit.
Pyrolusite.
103. Cassiterite (Tin-ore, Tin-stone).
 $\ddot{\text{Sn}}$ usually with $\ddot{\text{Fe}}$, $\ddot{\text{Mn}}$, $\ddot{\text{Si}}$ & $\ddot{\text{Ta}}$
 Kassiterit (Zinnerz, Zinnstein).
Cassitérite.
104. Rutile (Nigrine). $\ddot{\text{Ti}}$ with little $\ddot{\text{Fe}}$
 Rutil (Nigrin).
Rutile.
105. Manganite. $\ddot{\text{Mn}} \ddot{\text{H}}$
 Manganit.
Acerdèse.
- Psilomelane and Wad.
Psilomélane.
106. Limonite (Brown Iron Ore, Brown
 Hematite). $\ddot{\text{Fe}}^2 \ddot{\text{H}}^3$
 Brauneisenerz (Limonit, Braun-
 eisenstein).
Limonite (Hématite brune).

II. FLUORIDS & CHLORIDS.

107. Common Salt, Rock Salt. Na Cl
 Steinsalz.
Sel gemme.
108. Sal Ammoniac. $\text{N H}^4, \text{Cl}$
 Salmiak.
Sel ammoniac.
109. Fluor Spar. Ca F
 Fluorit (Flussspath).
Fluorine.
110. Cryolite. $\text{Na F} + \frac{1}{3} \text{Al}^2 \text{F}^3$
 Kryolith (Eisstein).
Cryolite.

III. SULPHURETS, ARSENIURETS.

111. Galena (Blue Lead). Pb S
 Bleiglanz (Galena).
Galène.
112. Blende (Zincblende, Sphalerite).
 Zn S , sometimes with Fe S
 Zinkblende (Blende, Sphalerit).
Blende.
113. Cinnabar. Hg S
 Zinnober (Cinnabarit, Mercur-
 blende).
Cinabre.

114. **Magnetic Pyrites.** Fe^7S^8 , sometimes with Ni
 Magnetkies.
Pyrrhotine.

115. **Pyrites.** Fe S^2 occasionally with Au or Ag
 Pyrit (Schwefelkies, Eisenkies).
Pyrite.

116. **Marcasite (White Iron Pyrites).**
 Markasit (Strahl-Wasserkies).
Marcassite.

117. **Leucopyrite.** Fe As^2
 Arseneisen (Arsenikalkies, Lolin-
 git, Leukopyrit).
Fer arsénical.

118. **Mispickel (Arsenopyrite).** $\text{Fe S}^2 + \text{Fe As}$
 Arsenkies (Misspickel, Arseno-
 pyrit).
Mispickel.

119. **Chalcopyrite (Copper Pyrites).** $\text{Cu}^2\text{S} + \text{Fe}^2\text{S}^3$
 Chalkopyrit (Kupferkies).
Cuivre pyriteux.

IV. NATIVE ELEMENTS.

120. **Sulphur.** S
 Schwefel.
Soufre.

121. **Graphite (Plumbago).**
 C often with Si , Ca & Al
 Graphit (Plumbago).
Graphite.

V. RESINS, ORGANIC COMPOUNDS.

122. **Amber.** $\text{C}^{10}\text{H}^8\text{O}$
 Bernstein.
Succin (Ambre).

123. **Bitumen, Naphtha, Asphalte.** C^9H^2 ; C, O & H
 Bitumen (Asphalt, Naphta, Pe-
 troleum, Erdöl, Bergtheer).
Bitume.

124. **Mellite (Honeystone).** $\text{Al} \overline{\text{M}}^3 + 18\text{H}$
 Mellit (Honigstein).
Mellite.

CLASSIFICATION OF ROCKS.

I. Igneous Rocks	.. .. .	Page 19
A. Basic Igneous Rocks	.. .. .	19
(1) Volcanic	.. .. .	19
Basaltic Rocks	.. .. .	19
(2) Plutonic	.. .. .	22
Greenstones	.. .. .	22
Porphyrite Group	.. .. .	27
Mica Trap Rocks	.. .. .	28
Syenite Group	.. .. .	29
B. Acidic Igneous Rocks	.. .. .	30
(1) Volcanic	.. .. .	30
Trachytes.	.. .. .	30
Phonolite Group..	.. .. .	33
(2) Plutonic	.. .. .	34
Granitic Group	.. .. .	34
II. Metamorphic or Crystalline Schists	.. .. .	39
III. Sedimentary Rocks	.. .. .	49
Argillaceous Group	.. .. .	49
Limestone Group	.. .. .	57
Fragmental Rocks	.. .. .	69
IV. Rocks of Special Character or Bedding	.. .. .	81
Serpentine Group	.. .. .	81
Garnet Group	.. .. .	82
Greisen and Schorl Group	.. .. .	82
Carbonaceous Group	.. .. .	83
Ironstone Group	.. .. .	88
V. Minerals as Rocks	.. .. .	93

R O C K S .



I.—IGNEOUS ROCKS.

(A) Basic Igneous Rocks.

(1) Volcanic.

Basaltic Rocks.

1. Dolerite and Anamesite (Mimesite, Nepheline-Dolerite, Trap in part). Labradorite
or Nepheline and Augite (with Titaniferous Magnetic Iron).

Dolerit und Anamesit (Mimesit, Basaltischer Grünstein, Grünstein, Nephelin-
Dolerit).

Doléríte. *Haüy.*

Varieties in Texture.

(a) Common Dolerite.

Doléríte lithoïde.

(b) Anamesite.

Anamesit. *Von Leonhard.*

Anamésite.

(c) Porphyritic Dolerite.

Crystals of Labradorite and Augite (rare).

Doléríte porphyroïde.

(d) Vesicular or Scoriaceous Dolerite

Trachy-Doléríte.

Basaltic Rocks.

- (e)
- Amygdaloidal.**
- (Rare.)

Amygdaloïde. Brongniart.

- (f)
- Dolerite Wacke.**

*Wacke doléritique.***Variety in Composition.**

- (g)
- Nepheline Dolerite.**

Nephelin-Dolerit. *Von Leonhard.* (Nephelin-Fels, Nephelinit.)*Néphélinite.***Appendix.****Tholeite, Analcymite.**

2. **Basalt (Nepheline Basalt, Trap in part).** Labradorite (or Nepheline) Augite and Basalt. Magnetic Iron (frequently with Carbonates and Zeolites) also Olivine.
Basalte.

Varieties in Texture.

- (a)
- Common compact Basalt.**

Basalte lithoïde.

- (b)
- Porphyritic Basalt, or Basaltic Porphyry.**

Basalte porphyroïde.

- (c)
- Vesicular or Scoriaceous Basalt.**

Scories basaltiques.

- (d)
- Amygdaloidal Basalt, or Basaltic Amygdaloid.**

Basalte amygdaloïde.

Basaltic Rocks.

- (e)
- Spotted and granular Basalt**
- (resembling Dolerite).

Basalte schistoïde.

- (f)
- Basalt Wacke.**

*Wacke basaltique.***Varieties in Composition.**

- (g)
- Common (or Labradorite) Basalt.**
-
- Labrador Basalt.

- (h)
- Nepheline-Basalt.**

Nephelin-Basalt

Basalte avec Néphéline.

- (i)
- Hauynophyry.**

Hauynophyr. *Rammelsberg.**Häüynophyre.*

- (k)
- Allogovite.**

Allogovit. *Winkler.*

- 3.
- Leucite Rock, Leucite Porphyry, Leucitophyry, Leucilite, Sperone.**
- Leucite
-
- Leucitfels. and Augite (with Magnetic Iron).
-
- Leucitophyre. Coquand.*

Varieties in Texture.

- (a)
- Porphyritic Leucite, Leucitophyry.**

Leucitophyre porphyroïde.

- (b)
- Compact Leucite.**

Leucitophyre lithoïde.

Basaltic Rocks.

- (c) Vesicular or Leucite Lava.

Leucitophyre vacuaire.

- (d) Amygdaloid.

*Amygdaloïde.***(2) Plutonic.****Greenstones (Trap in part).**

4. Diabase (Hyperite, Scandinavian Trapp).

Labradorite, Albite or Anorthite, and

Diabas.

Pyroxene (with some Chlorite).

*Diabase. Brongniart.***Varieties in Texture.**

- (a) Granular Diabase.

Diabase granitoïde.

- (b) Fine-grained (to compact) Diabase.

Diabase lithoïde.

- (c) Porphyritic Diabase.

Diabase porphyroïde.

- (d) Schistose Diabase, or Diabase Schist.

Diabas-Schiefer.

Schiste diabasique.

- (e) Amygdaloid.

Amygdaloïde.

Greenstones.**(f) Variolitic Diabase.***Diabase variolitique.***(g) Diabase Wacke.***Wacke diabasique.***Varieties in Composition.****(h) Common Diabase.****(i) Calcareous Diabase.**

Kalkdiabas.

Diabase calcaire.

With rounded grains of Calcspar.

(k) Eukrite.

Eukrit.

Anorthite and Augite.

(l) Teschinite.Teschinit. *Hohenegger.*

With Hypersthene.

(m) Augite Rock, Lherzolite.

Augitfels, Lherzolith.

Lherzolite.

Principally of Augite and Peridot.

(n) Malakolite.

Malakolithfels.

Pyroxénite. Coquand.

Principally of Sahlite.

5. Gabbro.

Labradorite or Saussurite with Diallage, Smaragdite or Hypersthene.

Gabbro. *Von Buch.**Gabbro.***(a) Gabbro, Diallage Rock, Granitone.**

Gabbro.

Diallagite. Descloizeaux.

Labradorite and Diallage.

Greenstones.

- (b) **Euphotide.** Felspar with Smaragdite.
Euphotide.
Euphotide. Häuy.
- (c) **Norite.** With much Felspar
Norit. *Scheerer.*
- (d) **Hypersthenite, Hyperite.** Labrador and Hypersthene.
Hypersthenit, Hypersthensyenit, Selagit.
Hypérite.
- Monzon-Hypersthenit. *Von Richthofen.* (A variety of Hypersthenite occurring in S. Tyrol, at Monzoni.)

- 6. Diorite.** Felspar and Amphibole.
Diorit.
Diorite. Häuy.

Varieties in Texture.

- (a) **Granular Diorite.**
Diorite granitoïde.
- (b) **Fine-grained to compact Diorite.**
Diorite lithoïde.
- (c) **Porphyritic Diorite, or Diorite Porphyry.**
Diorite porphyroïde.
- (d) **Slaty Diorite, or Diorite Slate.**
Diorit-Schiefer.
Diorite schistoïde.
- (e) **Orbicular Diorite, or Napoleonite.**
Kugel-Diorit.
Diorite orbiculaire. Brongniart.

Greenstones.(f) **Amygdaloidal Diorite.**(g) **Diorite Wacke.***Wacke dioritique.***Varieties in Composition.**(h) **Common Diorite.**

Oligoclase and Hornblende.

(i) **Anorthite-Diorite.**
Anorthit-Diorit.

Anorthite and Hornblende.

(k) **Timazite (Trachytic Greenstone).**
Timazit. *Breithaupt.*With crystals of White Felspar and Black
Amphibole (Gamsigradite).(l) **Calcareous Diorite.**
Kalk-Diorit. *Senft.*
Hemithrène.

With Calcspar.

7. Aphanite (Trap in part, Melaphyre in part).

Aphanit.

*Aphanite. Häuy.*A compact Greenstone of various
composition.**Varieties in Texture.**(a) **Common compact Aphanite.***Aphanite lithoïde.*(b) **Porphyritic Aphanite.***Aphanite porphyroïde.*(c) **Slaty Aphanite, or Aphanite Slate.**

Aphanit-Schiefer.

Aphanite schistoïde.

Greenstones.**(d) Vesicular Aphanite.***Aphanite vacuolaire.***(e) Amygdaloidal Aphanite.***Aphanite amygdaloïde.***(f) Aphanite Wacke.***Wacke aphanitique.***Varieties in Composition.****(g) Calcareous Aphanite.**

With crystals of Calcespar or Brown Spar.

Kalkaphanit, Schalstein in part.

(h) Variolitic Aphanite, Variolite.

Variolithischer Aphanit, Variolith.

*Variolithe, Jade glanduleux. Brongniart. Elie de Beaumont.***(i) Labradorite Porphyry (Black Porphyry).**

With crystals of Labradorite.

Labradorporphyr.

*Mélaphyre feldspathique.***(k) Oligoclase Porphyry.**

With crystals of Oligoclase.

Oligoklasporphyr.

(l) Augite Porphyry.

With crystals of Augite.

Augitporphyr.

*Mélaphyre pyroxénique.***(m) Uralite Porphyry.**

With crystals of Uralite.

Uralitporphyr.

*G. Rose.**Porphyre à Ouralite.***8. Melaphyre (Augite Porphyry in part, Trap in part).**

Felsite, Pyroxene,

Melaphyr.

Amphibole and Magnetic Iron Ore, and no Quartz.

*Mélaphyre.**Brongniart.*

Porphyrite Group.

9. **Porphyrite (Felspar Porphyry, Quartzless Porphyries, Mica Porphyry or Hornblende Porphyry).** Felsite, with crystals of Felspar, Mica or Hornblende.

Porphyrit. *G. Rose.*

Porphyrite.

- (A) **Porphyrite (Felspar Porphyry).**

Porphyrit.

Porphyrite.

- (a) **Porphyritic.**

Porphyroïde.

- (b) **Compact.**

Lithoïde.

- (c) **Amygdaloid.**

Amygdaloïde.

- (d) **Wacke.**

Argilophyre. Brongniart.

- (B) **Hornblende Porphyrite.**

Hornblendeporphyr.

Porphyre syénitique.

With crystals of Hornblende and Oligoclase.

- (a) **Porphyritic.**

Porphyroïde.

- (b) **Compact.**

Lithoïde.

- (c) **Amygdaloid.**

Amygdaloïde.

Porphyrite Group.(d) **Wacke.**

(C) **Mica Porphyrite.**
 Glimmerporphyrit.
Porphyre micacée.

With crystals of Mica and Felspar.

(a) **Porphyritic.**(b) **Compact.**(c) **Amygdaloid.**(d) **Wacke.****Mica Trap Rocks.**

10. **Mica Trap.**
 Glimmertrapp.
Trapp micacé.

Felspar and Mica.

(A) **Minette.**
 Minette.
Minette.

With much Mica.

(B) **Fraidronite.**
 Fraidronit.
Fraidronite.

A variety of Minette.

E. Dumas.

Mica Trap Rocks.

- (C) **Kersanton.** Hexagonal crystals of Magnesian Mica.
 Kersanton.
Kersanton.
- (D) **Kersantite.** Oligoclase and Mica.
 Kersantit.
Kersantite (Oligoclasite).

Syenite Group.

11. **Syenite.** Orthoclase and Hornblende (usually with some Titanite).
 Syenit. *Werner.*
Syénite.

Varieties in Texture.

- (a) **Common Syenite.** Uniformly granular.
Syénite commune.
- (b) **Porphyritic Syenite.** With prominent crystals of Orthoclase.
Syénite porphyroïde.

Appendix.

- Mica-Diorite.** Hornblende, Orthoclase, Oligoclase, and little Quartz.
 Glimmerdiorit.
Diorite micacée. *Delesse.*

12. **Miascite.** Orthoclase, Nepheline, Sodalite, and Black Mica.
 Miascit.
Miascite.

Varieties.

- (A) **Zircon Syenite.** Orthoclase, Nepheline, Zircon, and little Hornblende.
 Zirkonsyenit. *Von Buch.*
Syénite zirconiienne.
- (B) **Foyaite.** Orthoclase, Nepheline, and Hornblende.
 Foyait.

(B) Acidic Igneous Rocks.**(1) Volcanic.****Trachytes.**

13. **Trachyte.** Sanidine and Oligoclase, with some Hornblende (or Augite) and dark Mica.
 Trachyt.
Trachyte. Häufig.

Varieties in Texture.**(a) Granular Trachyte.***Trachyte granitoïde.***(b) Porphyritic Trachyte.***Trachyte porphyroïde.***(c) Compact Trachyte.***Trachyte lithoïde.***(d) Vesicular Trachyte.***Trachyte vacuolaire.***(e) Decomposed Trachyte.***Trachyte décomposé.*

- (A) Sanidine Trachyte.** Chiefly of Sanidine.
 Sanidin Trachyt.

- (B) Sanidine-Oligoclase-Trachyte.** (Drachenfels) Sanidine and Oligoclase.
 Sanidin-Oligoklastrachyt.

Trachytes.

- (C) **Oligoclase Trachyte (Domite).** Oligoclase, Hornblende, and dark Mica.
Oligoklas-Trachyt.
Domite.
- (D) **Andesite.** Oligoclase and Augite.
Andesit.
Andésite.
- (E) **Trachy Dolerite.** Oligoclase or Labradorite, with Hornblende or Augite.
Trachydolerit.
Trachy-doléríte.
14. **Rhyolite.** A Trachyte rich in Silica.
Rhyolith.

- (A) **Trachyte Porphyry.** A felsitic porphyry geologically allied to the Trachytes.
Trachytporphyr.
Porphyre trachytique.

Varieties in Texture.

- (a) **Common Trachyte Porphyry.** With crystals of Sanidine or Oligoclase
(also Mica and Quartz).
- (b) **Perlite-like Trachyte Porphyry.** (Passes over into Perlite.)
- (c) **Argilo-Trachyte Porphyry.** (An earthy variety.)
- (d) **Vesicular or Cavernous Trachyte Porphyry (Millstone Porphyry).**
Mühlsteinporphyr.
Porphyre molaire.
- (e) **Pumiceous Trachyte Porphyry.**

Trachytes.

(f) **Slaty Trachyte Porphyry.**

(B) **Perlite (Pearlstone, Pearlstone Porphyry).** Enamel-like mass (with Sphærolites).
 Perlit.
Perlite.

Varieties in Texture.

(a) **Granular Shelly Perlite.**
 Königschaliger Perlit.
Trachyte testacé. Beudant.

(b) **Sphærolitic Perlite.** With many Sphærolites.
Perlite globulaire.

(c) **Perlite Porphyry.**
Perlite porphyroïde.

(d) **Vitreous with Resinous Lustre.**

(e) **Argillaceous Perlite.** (Dull from commencing decomposition.)

(f) **Pumiceous Perlite.**

(C) **Obsidian and Pumicestone.** A volcanic Glass, sometimes vesicular.
 Obsidian und Bimsstein.
Obsidienne et Ponce.

(a) **Common Obsidian.** Altogether vitreous.

Obsidienne commune lithoïde.

Trachytes.

- (b) **Obsidian Porphyry.** With crystals of Oligoclase.

Obsidienne porphyroïde.

- (c) **Sphærolitic Obsidian.** Passes into Perlite.

Obsidienne globulaire.

- (d) **Vesicular Obsidian, or Pumice-stone.**

Obsidienne vacuaire.

Phonolite Group.

15. **Phonolite, Clinkstone.** A compact vitreous Felspar (usually slate).

Phonolith, Klingstein, Porphyrschiefer.

Phonolithe.

Varieties in Texture.

- (a) **Common Phonolite.** Dark-coloured, compact, slaty, and clinking.

Phonolithe commune.

- (b) **Porphyritic Phonolite.** With crystals of Hornblende or Sanidine.

Phonolithe porphyroïde.

- (c) **Trachytic Phonolite.** Not slaty nor clinking.

- (d) **Spotted Phonolite.**

Phonolithe tachetée.

- (e) **Vesicular Phonolite.**

Phonolithe vacuaire.

- (f) **Amygdaloidal Phonolite.**

Phonolithe amygdaloïde.

(2) Plutonic.**Granitic Group.****16. Granite.**

Felspar, Quartz, and Mica.

Granit.

*Granite.***Varieties in Texture.****(a) Common Granite.**

The most prevalent of Igneous Rocks.

*Granite commun.***(b) Porphyritic Granite.**

Gebirgs-Granit.

*Granite porphyroïde.***(c) Gneissic Granite.***Granite gneissique.***(d) Graphic Granite.**

Schriftgranit.

*Pegmatite. Häüy.***(e) Pegmatite.**Pechmatit. *Naumann.**Pegmatite (Granite graphique).***(f) Mirolite.**

Geodic, with much Oligoclase.

Miarolith.

*Miarolite. Fournet.***Varieties in Composition.****(g) Protogine.**

With Tale instead of Mica.

Protogin.

*Protogine. Jurine.***(h) Syenitic Granite.**

With Hornblende.

Granitic Group.

- (i) **Schorlaceous Granite.** With Schorl instead of Mica.
Schörlgranit.
Luxiliane. Pisani.
- (k) **Adularia Granite and Adularia Protogine.** With Adularia.
Adulargranit und Adularprotogin.
- (l) **Granitite.** Much Oligoclase, red Orthoclase, Quartz and some dark Mica.
Granitit.
- (m) **Rumburg Granite.** With blue Quartz.
Rumberger Granit.
- (n) **Graphitic Granite.** With Graphite instead of Mica.
Graphitgranit.
- (o) **Ferruginous Granite.** With Micaceous Iron.
Eisengranit.
- (p) **Beresite.** With Pyrites and little Mica.
Beresit.
- (q) **Aplite, or Semi-Granite.** Orthoclase and Quartz.
Aplit oder Halbgranit.

Greisen. (See post, No. 49.)

- (r) **Tonalite.** Triclinic Felspar, Quartz, Magnesia, Mica, and Hornblende.
Tonalit. *Von Rath.*

- 17. Granitic Porphyry and Syenitic Porphyry.** Felsite, with crystals of Felspar,
Granitporphyr und Syenitporphyr. Quartz, and Mica or Chlorite.

Granitic Group.**Varieties.**

- (a) **Common Granite-Porphry.** A compact Felsitic mass, with crystals of Orthoclase, Quartz, and Mica.
- (b) **Granitic Granite-Porphry.** The matrix a fine-grained Granite.
Granitähnlicher Granitporphyr.
- (c) **Micaceous Granite-Porphry.** The matrix resembling Minette.
Glimmerreicher Granitporphyr.
- (d) **Chloritic Granite Porphry.** The matrix containing Chlorite.
Chloritischer Granitporphyr.
- (e) **The above without Crystals.**

18. **Quartz Porphry, Elvanite.** A compact Felsite, with crystals of Felspar and Quartz.
Quarzporphyr.
Porphyre quartzifère. (Elvan).

Varieties in Texture.

- (a) **Common Quartz Porphry.** With crystals of Felspar and Quartz.
Porphyre quartzifère commun.
- (α) **Hornstone Porphry.**
Hornsteinporphyr.
Elvan.
- (β) **Felstone Porphry.**
Feldsteinporphyr.
Pétrosilex.
- (γ) **Claystone Porphry, or Argillophry.**
Thonsteinporphyr oder Thonporphyr.
Argilophyre.

Granitic Group.

- (b) **Striped Porphyry.**
Schiefriger Porphyr, Schalen- oder Bandporphyr.
Pétrosilex rubané.
- (c) **Spotted Porphyry.**
Fleckenporphyr.
- (d) **Porous, Cavernous, or Millstone Porphyry.**
Poröser, drusiger, oder Mühlsteinporphyr.
- (e) **Pyromerid.** With globular concretions of Felsite.
Kugelporphyr oder Pyromerid.
Pyroméride. Monteiro.
- (f) **Porphyry with few Crystals.**
Krystallarmer Porphyr.

Varieties in Composition.

- (g) **Orthoclase Quartz Porphyry.** With crystals of Orthoclase alone.
Orthoklas-Quarzporphyr.
- (h) **Oligoclase Quartz Porphyry.** With crystals of Orthoclase and Oligoclase.
Oligoklas-Quarzporphyr.
- (i) **Sanidine Quartz Porphyry.** With crystals of Sanidine and Quartz.
Sanidin-Quarzporphyr.

19. **Felstone, Felsite Rock, and Felsite Schist.** A compact Felsitic Rock.
Felsitfels und Felsitschiefer.

Varieties.

- (a) **Felstone proper, or Petrosilex.**
Petrosilex.
Pétrosilex. Dolomien.

Granitic Group.

- (b) **Wernerite Rock.** A compound of Felspar and Skapolite.
 Werneritfels.
Skapolit-fels.

- (c) **Hällefinta, or Felsite Schist.**
 Hällefinta oder Felsitschiefer.
Hällefinta.

20. **Pitchstone and Pitchstone Porphyry.** A vitreous Felsitic Rock, with resinous lustre.
 Pechstein und Pechsteinporphyr.
Rétinite.

Varieties.

- (a) **Common Pitchstone,**

Rétinite lithoïde.

- (b) **Pitchstone Porphyry,** With crystals of Sanidine.
 Pechsteinporphyr.
Rétinite porphyroïde.

- (c) **Argillaceous Pitchstone.** A stage of decomposition.
 Pechthonstein. *Naumann.*
Argilorétinite.

II.—METAMORPHIC OR CRYSTALLINE SCHISTS. .

21. **Granulite, Leptynite.** Felspar and Quartz (usually with some Mica).
 Granulit, Weissstein.
Leptynite. Haüy.
- Varieties.**
- (a) **Common Granulite.** With little Mica; contains Garnets.
Leptynite commune.
- (b) **Riband-striped Granulite.** Striped by layers of Mica.
 Bandstreifiger Granulit.
Leptynite rubané.
- (c) **Micaceous Granulite, or Gneiss Granulite.** Without Garnets.
 Glimmerreicher oder Gneissgranulit.
Leptynite micacé.
- (d) **Granitic Granulite.** More granular than slaty.
 Granitgranulit.
Leptynite grenu.
- (e) **Black Granulite.** Coloured by Protoxide of Iron.
 Schwarzer Granulit.
Leptynite noir.
- (f) **Spotted Granulite.** Spotted by Hornblende.
 Gefleckter oder Forellengranulit.
- (g) **Schorlaceous Granulite.** With much Schorl.
 Tourmalingranulit.
Leptynite tourmalinifère.

22. **Gneiss.** Quartz, Felspar and Mica (with Schistose texture).
 Gneiss, Gneuss.
Gneiss.

Geological Division.

- (A) **Gneissite, or Red Gneiss.**
 Rother Gneiss oder Gneissit.

- (B) **Grey Gneiss.**
 Grauer Gneiss.

- (C) **Medium Gneiss.**
 Mittelgneiss.

Varieties in Texture.

- (a) **Common Freiberg Gneiss.**
 Freiburger Normalgneiss.
Gneiss commun ou normal.
- (b) **Porphyritic Gneiss.**
 Augengneiss oder Porphyrtiger Gneiss.
Gneiss porphyroïde.
- (c) **Stangel Gneiss, or coarsely fibrous Gneiss.**
 Stängelgneiss oder Holzgneiss.
- (d) **Very fine slaty Gneiss, or Slate Gneiss.**
 Schiefergneiss.
- (e) **Very fine-grained, almost compact Gneiss.**
Gneiss à grains fins.

- (f) **Lagen Gneiss.** Disposed in thin layers.
Lagengneiss.
Gneiss rubané.
- (g) **Granite Gneiss, or Granitic Gneiss.** Very granular, Schistose texture indistinct.
Granitgneiss oder granitähnlicher Gneiss.

Varieties in Composition.

- (h) **Granulite Gneiss.** With little Mica, and that white-coloured.
Granulitgneiss.
- (i) **Micaceous Gneiss.** With much Mica (usually dark-coloured) and little Felspar.
Glimmergneiss.
- (k) **Gneiss, very rich in Quartz.**
- (l) **Syenitic Gneiss.** With Hornblende.
Syenitgneiss.
Gneiss amphibolique.
- (m) **Protogine Gneiss.** With Talc.
Protogingneiss.
Gneiss talqueux.
- (n) **Adularia Gneiss.** With Adularia, instead of Orthoclase.
Adulargneiss.
- (o) **Oligoclase Gneiss.** With Oligoclase.
Oligoklasgneiss.
- (p) **Gneiss with two kinds of Mica (black and white).**

METAMORPHIC OR CRYSTALLINE SCHISTS.

- (q) **Dichroit Gneiss.** With Dichroite instead of Mica.
Dichroitgneiss.
Gneiss avec Dichroite.
- (r) **Micaceous Iron Gneiss.** With Micaceous Iron.
Eisenglimmergneiss.
- (s) **Graphite Gneiss.** With Graphite instead of Mica.
Graphitgneiss.
- (t) **Alpinite.** Quartz, Oligoclase, and Green Mica.
Alpinit. *Simler.*
23. **Mica Schist.** Mica and Quartz.
Glimmerschiefer.
Micaschiste. Brongiart.

Varieties in Texture.

- (a) **Common Mica Schist.**
Micaschiste commun ou normal.
- (b) **Very fine and even texture.**
Planglimmerschiefer.
- (c) **Wavy texture.**
Faltenglimmerschiefer.
À texture ondulée.
- (d) **Fibrous, wood-like texture.**
Gestreckter Glimmerschiefer oder Holzglimmerschiefer.
- (e) **Contorted texture.**
Verworrenschiefriger oder Wulstglimmerschiefer.
À texture froissée ou plissée.

(f) **Stratified texture.**
Lagenglimmerschiefer.

(g) **Knotty texture.**
Knotenglimmerschiefer.

Varieties in Composition.

(h) **Garnetiferous Mica Schist.**
Granatglimmerschiefer.
Micaschiste grenatifère.

(i) **Gneissic Mica Schist.** With some Felspar.
Gneissglimmerschiefer.

(k) **Chloritic Mica Schist.** With Chlorite.
Chloritglimmerschiefer.
Micaschiste avec chlorite.

(l) **Talcose Mica Schist.** With Talc.
Micaschiste avec talc.

(m) **Mica Schist with white and black Mica.**

(n) **Graphitic Mica Schist.**
Graphitglimmerschiefer.
Micaschiste avec graphite.

(o) **Micaceous Iron Schist.** With Micaceous Iron.

(p) **Schorlaceous Mica Schist.** With Tourmaline.

Micaschiste avec tourmaline.

- (q) **Hornblentic Mica Schist.** With Hornblende.
Micaschite avec hornblende.
- (r) **Quartzose Mica Schist.** With much Quartz.
- (s) **Calcareous Mica Schist.** A limestone with Mica.
Kalkglimmerschiefer. Blauschiefer.
- (t) **Paragonite Schist.** With Damourite for its Mica.
Paragonitschiefer. *Schafthäutl.*
- (u) **Amphilogite Schist.** A finely-foliated greenish variety in the Alps.
Amphilogitschiefer. *Schafthäutl.*
- (v) **Nactiride.** Quartz, with white and black Mica.
Nactirid. *Schill.*
24. **Quartz Schist.** Quartz, usually with some Mica.
Quarzschiefer.
Quartz schisteux.
- Varieties in Texture.
- (a) **Common Quartz Schist.** With little Mica, indistinctly foliated.
Quartz schisteux commun.
- (b) **Granular Quartz Schist, or Quartzite.** Fine-grained.
Quarzit.
Quartzite.
25. **Itacolumite.** Quartz, with some Mica, Talc, or Chlorite (sometimes flexible).
Itakolumit.
Itacolumite.

Varieties.

- (a) Common Itacolumite.

Itacolumite commune.

- (b) Flexible Itacolumite.

Very fine-grained and flexible.

Itacolumite flexible.

- (c) Conglomerate Itacolumite.

With Quartz pebbles.

Itacolumite grenue.

26. Chlorite Schist and Potstone.

Chlorite, usually with Quartz, and sometimes also

Chloritschiefer und Topfstein.

Felspar, Mica, or Talc.

Schiste chloritique.

Appendix to Chlorite Schist.

- (a) Chlorite Schist.

Of Harthau, near Chemnitz (with remarkable yellow spots).

- (b) Chloritoid Schist. *Hunt.*

A dark-coloured Schist of Canada.

- (c) Potstone.

A felt-like web of Chlorite.

Topfstein (Lavezstein, Giltstein).

Pierre ollaire.

27. Talc Schist.

Talc, usually with some Quartz, and sometimes Felspar.

Talcschiefer.

Talcschiste. (Stéaschiste. Brongniart.)

Varieties.

- (a) Common Talc Schist.

Frequent in the Alps.

Talc schiste commun.

- (b) Listwenite.

A variety known in the Ural.

(c) **Dolerine.** *Jurine.* With Felspar and Chlorite (Pennine Alps).

28. **Hornblende Schist and Hornblende Rock.** Hornblende, with Felspar, Quartz, or Hornblendeschiefer und Hornblendefels (Amphibolit). Brown Mica, in small quantities. *Schiste amphibolique et Amphibolithe. Brongniart.*

(a) **Hornblende Schist.** Foliated.

Schiste amphibolique.

(b) **Hornblende Rock.** Without foliation of texture.
Hornblendefels.

Amphibolithe.

(c) **Actinolite Schist.** Consists principally of Actinolite.
Strahlstein oder Actinolithschiefer.

29. **Argillaceous Mica Schist (Phyllite).** An intermediate state between Mica Schist and Clay Slate.
Thonglimmerschiefer (Phyllit, Urthonschiefer).
Phyllade. D'Aubuisson.

Varieties in Texture.

(a) **Common Clay Mica Schist.**

Phyllade commun, satiné.

(b) **Folded or Crumpled.**

(c) **Fibrous or Woody Texture.**

(d) **Very much contorted.**

Plissé, froissé.

- (e) **Nodular Schist.**
Knotenschiefer.
Schiste noduleux.

Varieties in Composition.

- (f) **Rich in Mica.**
Glimmerreicher Thonglimmerschiefer.
Micacé.
- (g) **Rich in Quartz.**
Quartzeux.
- (h) **Chloritic.**
Chloritique.
- (i) **Talcose.**
Talqueux.
- (k) **A variety, containing Hornblende.**
- (l) **A variety, containing Felspar.**
- (m) **A variety, containing Garnets.**
Grenatifère.
- (n) **Sericite Schist.** *List.* Chiefly of Sericite.
Sericitschiefer.
Schiste à Sérícite.
- (o) **Ottrelite Schist.** Gray, with green flakes of Ottrelite.
Ottrelitschiefer.
Schiste à Ottrélite.

- (p) **Chiastolite Schist.** With crystals of Chiastolite.
Chiastolithschiefer.
Schiste maclifère.
- (q) **Nodular or Spotted Schist.** With small concretions of Hornblende, &c.
Knotenschiefer, Fleck- oder Fruchtschiefer.
Schiste noduleux ou rubané.
- (r) **Alum Schist.** Black (contains carbon).
Alaunschiefer.
Schiste alumineux.
- (s) **Carbonaceous Schist, Black Chalk.**
Zeichenschiefer, Schwarze Kreide.
Schiste houiller.

III.—SEDIMENTARY ROCKS.

Argillaceous Group.

30. **Clay Slate.** Clay, sometimes with Quartz, Mica, &c. (a fine-grained fissile rock,
Thonschiefer. with slaty cleavage).
Schiste argileux, Schiste ardoisier.

Varieties in Texture.

- (a) **Common Clay Slate.** With imperfect or rough cleavage, and accessory
ingredients.
Schiste argileux commun.
- (b) **Roofing Slate.** With perfect cleavage free from accessories.
Dachschiefer und Tafelschiefer.

Varieties in Composition.

- (c) **Whetslate, Whetstone, Hone, Oilstone, Novaculite.** Highly siliceous.
Wetzschiefer.
Schiste siliceux (novaculaire). De Charpentier.
- (d) **Carbonaceous Clay Slate.** Passes into Alum Schist.
Schiste houiller.
- (e) **Arenaceous Clay Slate.** Passes into Argillaceous Sandstone.
Sandiger Thonschiefer (Grauwackenschiefer).
- (f) **Micaceous Clay Slate.** The Mica a mechanical ingredient only.
Glimmerreicher Thonschiefer.
Schiste micacé (pailleté).
- (g) **Calcareous Clay Slate.** With nodules of Limestone.
Kalkknotiger Thonschiefer (Kramenzelstein).
Calschiste. Brongniart.

Argillaceous Group.**Geological Varieties.**

- (1) **Glarus Slate.** Chalk, or Eocene formation.

Schiste satiné (luisant).

- (2) **Cypris Slate.** Upper Devonian. *Häuy.*

Schiste à Cypridine.

- (3) **Wissenbach Slate.** Devonian. *Häuy.*

Schiste de Wissenbach.

- (4) **Calceola Slate.** Devonian. *Häuy.*

Schiste à Calcéoles.

- (5) **Graywacke Slate.** Transition.

Gräuwacke schisteuse.

- (6) **Wenlock Slate.** Silurian. *England.*

Schiste de Wenlock.

- (7) **Graptolite Slate.** Silurian.

Schiste à graptolites.

- 31. Argillaceous Shale, Shale.** A laminated Clay Rock, without actual slaty cleavage.

Schieferthon.

Argile schisteuse.

Varieties in Composition.

- (a) **Common Argillaceous Shale.** A softer and more earthy variety of Clay Slate, without its cleavage.

Argile schisteuse commune.

- (b) **Pencil Slate, Pinsill or Pencil.**
Griffelschiefer.

Ampélite graphique.

Argillaceous Group.

- (c) Schieferletten. The clay is somewhat plastic. (3)

Varieties in Composition.

- (d) **Bituminous Shale.** Of dark-brown colour. (4)
 Bituminöser Schieferthon.
Schiste bitumineux.
- (e) **Carbonaceous Shale, Carboniferous Shale (Batt or Bass, Kelve).**
 Kohlschiefer.
Schiste houiller.
- (f) **Variiegated Shale.** Variously coloured by Oxides of Iron.
 Bunter Schieferthon oder Schieferletten.
Schiste bigarré.
- (g) **Arenaceous Shale.** Passing into Argillaceous Sandstone.
 Sandiger Schieferthon.
Schiste arénacé.
- (h) **Micaceous Shale.**
 Glimmerreicher Schieferthon.
Schiste micacé.
- (i) **Calcareous Shale.**
 Mergeliger Schieferthon.
Schiste calcaire.

Geological Varieties.

- (1) **Flysch.** Eocene. (1)
Schiste à Flysch.
- (2) **Fucoidal Shale.** Eocene and older. (2)
Schiste à Fucoides.

Argillaceous Group.

- (3) **Roeth.** Occurring between the Muschelkalk and variegated Sandstone.
- (4) **Werfner Schiefer.** Buntsandstein formation.
- (5) **Carboniferous Shale or Slate.** Coal formation.
Schiste et argile carbonifères.
- (6) **Posidonomyad Shale.** Coal formation.
Schiste à posidonomyes.

32. Clay and Loam.

Thon und Lehm.

Argile.

- (a) **Clay.**
Thon.
Argile.
- (b) **Loam.** Clay, with Sand, Mica, &c.
Lehm.
- (c) **Saliferous Clay.**
Salzthon.
Argile salifère.

Geological Varieties.

- (1) **Loess, or Diluvial Loam.** Diluvial.
Löss.
Loess. (Limon diluvien).
- (2) **Tile or Brick Earth.** Miocene or Neogene.
Tegel.

Argillaceous Group.

- (3) Braunkohlenthon. Miocene (Germany).
- (4) Septarienthon. Miocene (Germany).
- (5) Barton Clay. Eocene (Hampshire).
- (6) Bognor Clay. Eocene (London Basin).
- (7) London Clay. Eocene (London Basin).
- (8) Plastic Clay. Eocene.
Argile plastique. (Paris Basin).
- (9) Hilsthon. Hils formation (Westphalia).
- (10) Speeton Clay. Lower Greensand (England).
- (11) Weald Clay. Wealden formation (Sussex).
Argile wealdienne.
- (12) Ornaten-Thon. Jura (Swabia).

Argillaceous Group.

- (13) Opalinus-Thon. Jura (Swabia).
- (14) **Kimmeridge Clay.** Jura (England).
Argile kimmérienne.
- (15) **Oxford Clay.** Jura (England).
Argile oxfordienne.
- (16) Amaltheen-Thon. Lias (Swabia).
- (17) Turner-Thon. Lias (Swabia).
- (18) Miacyten-Thon. Lower Keuper (Thuringia).
- 33. Claystone and Hardened Clay.** Principally Clay (either sedimentary or a
Thonstein oder verhärteter Thon. decomposed Felsite).
- 34. Marl.** Clay and Lime.
Mergel.
Marne.
- Varieties in Texture.**
- (a) **Marl Shale.**
Mergelschiefer.
Marne schisteuse.
- (b) **Compact Marl, or Marl-stone.**
Dichter Mergel, verhärteter Mergel, Steinmergel, oder Mergelstein.
Marne compacte.

Argillaceous Group.

- (c) **Earthy Marl.**
Erdiger Mergel.
Marne grossière.

Varieties in Composition.

- (d) **Calcareous Marl.** Rich in Lime.
Kalkmergel.
Marne calcaire.
- (e) **Dolomitic Marl.** Containing Dolomite.
Dolomitmergel.
Marne dolomitique.
- (f) **Argillaceous Marl.** Poor in Lime.
Thonmergel.
Marne argileuse.
- (g) **Arenaceous Marl.** With Sand.
Sandmergel.
Marne arénacée.
- (h) **Micaceous Marl.** With much Mica.
Glimmermergel.
Marne micacée.
- (i) **Bituminous Marl.** Containing Bitumen (dark-coloured)
Bituminöser Mergel.
Marne bitumineuse.
- (k) **Glauconite Marl.** With grains of Glauconite (green)
Glaukonitmergel.
Marne glauconieuse.
- (l) **Gypseous Marl.** With Gypsum.
Gypsmergel.
Marne gypseuse.

Argillaceous Group.

Geological Varieties.

- | | |
|--|----------------------------|
| (1) Sub-Apennine Marl. | Pliocene (Italy). |
| <i>Marne subapennine.</i> | |
| (2) | |
| Cyrenen-Mergel. | Miocene. |
| <i>Marne à Cyrènes.</i> | |
| (3) Chalk Marl. | Chalk formation. |
| Kreidemergel. | |
| <i>Craie marneuse.</i> | |
| (4) | |
| Plänermergel. | Quadersandstein formation. |
| (5) Folkestone Marl. | Gault (England). |
| <i>Marne du gault.</i> | |
| (6) Forest Marl. | Chalk (England). |
| Flammen-Mergel. | Quadersandstein (Germany) |
| <i>Calcaire lithographique (Calcaire marneux).</i> | |
| (7) Lias Slate. | (Bituminous) Lias. |
| Liasschiefer. | |
| <i>Schiste liasique.</i> | |
| (8) | |
| Jurensis-Mergel. | Lias (Swabia). |
| (9) Posidomya Slate. | Lias. |
| Posidomyen-Schiefer. | |
| <i>Schiste à Posidonies.</i> | |
| (10) Nummismalia Marl. | Lias. |
| Nummismalis-Mergel. | |

Argillaceous Group.

- (11) **Belemnite Marl.** Lias.
 Belemnitenschiefer.
Marne à Belemnites.
- (12) Fleckenmergel oder Algäuschiefer. Upper Lias (Alps).
- (13) **Keuper Marl.**
 Keupermergel. Keuper.
Marne du Keuper.
- (14) Partnachschiefer oder Bacdrillienschiefer. Keuper (Alps).
- (15) Bituminöser Mergelschiefer. Zechstein.
- (16) Kupferschiefer. Zechstein (Thuringia).

Limestone Group.

35. **Limestone.** Calspar, Carbonate of Lime.
 Kalkstein.
Calcaire.

Varieties in Texture.

- (a) **Granular Limestone.**
 Körniger Kalkstein.
Calcaire saccharoïde.
- (α) **Cipolline.** Rich in Mica.
 Cipollin.
Cipolin.

Limestone Group.

- (β) **Anthraconite. (Lucullan.)** Carbonaceous, black.
 Anthrakonit. *Von Moll.*
- (γ) **Ophicalcite (verde antique).** Limestone and Serpentine.
 Ophicalcit.
Ophicalcite. Brongniart.
- (δ) **Calciphyre.** With Garnet, Pyroxene, or Felspar.
 Calciphyr.
Calciphyre. Brongniart.
- (ε) **Hemitrene.** With Hornblende and Grammalite.
 Hemitren.
Hemithrène. Brongniart.
- (ζ) **Hislopite.** *Haughton.* (Takli.)
 Hislopit.

(b) Compact Limestone.

Calcaire compacte.

(a) Dolomitic.

Dolomitique.

(β) Bituminous.

Stinkstein, Stinkkalk.
Calcaire bitumineux.

(γ) Argillaceous (or Marly) Limestone.

Mergelkalkstein.
Calcaire argileux ou marneux.

(δ) Ferruginous Limestone.

Eisenkalkstein.
Calcaire ferrugineux.

Limestone Group.

- (e) **Chert Limestone, or Siliceous Limestone.**
Kieselkalkstein.
Chert-calcaire, ou Calcaire silicieux.
- (c) **Earthy Limestones.** Chalk in part.
Erdiger Kalkstein (Kreide).
Calcaire terreux (Craie).
- (a) **White Chalk.**
Weisse Kreide.
Craie blanche.
- (β) **Glauconitic Chalk.**
Glaukonitische Kreide.
Craie glauconieuse.
- (γ) **Arenaceous Limestone.**
Sandiger Kalkstein.
Calcaire arénacé.
- (d) **Oolitic Limestone, Oolite, Roestone, Peastone or Pisolite.**
Oolithischer Kalkstein, Oolith, Rogenstein, Erbsenstein oder Pisolith.
Calcaire oolithique, Calcaire pisolithique.
- (e) **Nodular Limestone.**
Knotenkalkstein.
Calcaire noduleux.
- (a) **Nodules of Limestone in Limestone or Marl Matrix.**
Kalkknoten in Kalk oder Mergel.
- (β) **Kramenzelstein.** Nodules of Limestone in Clay Slate.
Kramenzelstein.
- (f) **Slaty Limestone.**
Schiefriger Kalkstein.
Calcaire schisteux.

Limestone Group.

(g) **Porous Limestone.**
 Poröser Kalkstein.
Calcaire caverneux.

(a) **Foamy Limestone, Aphrite.**
 Schaumkalk oder Mehlbatzen.

(β) **Limestone Tuff, Calcareous Tuff.**
 Kalktuff.
Tuf calcaire.

(h) **Geodic Limestone.**
 Drusiger Kalkstein.
Calcaire géodique.

(i) **Cellular Limestone.**
 Zellenkalk oder Rauhkalk.
Calcaire celluleux.

With angular cavities.

(k) **Breccian Limestone.**
 Breccienkalk oder Kalkbreccie.
Brèche calcaire.

(Trümmer und Ruinen Marmor.)

(l) **Stylolite Limestone.**
 Stylolithenkalk und Nagelkalk.
Calcaire à Stylolites.

(m) **Fibrous Limestone.**
 Faseriger Kalkstein (Faserkalk).
Calcaire fibreux.

Geological Varieties.

(1) **Limestone Tuff, Calcareous Tuff.**
 Kalktuff.
Tuf calcaire.

Freshwater formation.

(2) **Travertine.**
 Travertin.
Travertin.

Freshwater formation (in Italy).

Limestone Group.

- (3) **Coral Reefs.**
Korallenriffe.
Calcaire corallien.
- (4) **Freshwater Limestone.**
Süßwasserkalk.
Calcaire d'eau douce (lacustre).
- (5) **Steppe Limestone.** (In Southern Russia.)
Steppenkalk.
- (6) **Leitha Limestone.** Tertiary.
Leithakalk.
- (7) **Litorinella Limestone.** Tertiary.
Litorinellenkalk.
Calcaire à littorinelles.
- (8) **Cerithium Limestone.** Tertiary.
Cerithienkalk.
Calcaire à Cérîtes.
- (9) *Calcaire grossier.* Eocene (Paris basin).
- (10) **Nummulitic Limestone.** Eocene.
Nummulitenkalk.
Calcaire à nummulites.
- (11) **Orbitoidal Limestone.** Eocene (North America).
Calcaire à orbitolites.
- (12) **Majolica.** Eocene.

Limestone Group.

- (13) **Scaglia.** Eocene (Alps).
Calcaire à Ostracées.
- (14) **Ostrœa Limestone.** Eocene.
 Ostreenkalk.
Calcaire à Ostracées.
- (15) **Upper and Lower Chalk.** Chalk formation.
 Kreidekalk, Kreide.
Craie supérieure et inférieure.
- (16) **Hippuritidea or Hippurite Limestone.** Upper Chalk (Alps).
 Hippuritenkalk.
Calcaire à Hippurites.
- (17) Upper Chalk.
 Rudistenkalk oder Hieroglyphenkalk.
Craie à Rudistes.
- (18) **Spatangus Limestone.** Upper Chalk.
 Spatangenkalk.
Calcaire à Spatangues.
- (19) **Aptychia Limestone.** Chalk or Jura.
 Aptychenkalk.
Calcaire à Aptychus.
- (20) Plänerkalk. Quader Sandstein (Germany).
- (21) **Serpulite.** Wealden formation.
 Serpilit.
Calcaire à Serpules.
- (22) **Portland Stone and Oolite.** Upper Jura.
 Portland-Oolith.
Calcaire Portlandien.

Limestone Group.

- (23) **Astartin Limestone.** Upper Jura.
Astartenkalk.
Calcaire à Astartes.
- (24) **Diceras Limestone.** Upper Jura.
Diceraskalk.
Calcaire à Dicérates.
- (25) **Coral Rag.** Jura.
Korallenkalk, Polypenkalk, oder Madreporenkalk.
Calcaire corallien.
- (26) **Nerinea Limestone.** Jura.
Nerineenkalk.
Calcaire à Nérinées.
- (27) **Ammonite Limestone.** Jura or Lias.
Ammonitenkalk.
Calcaire à Ammonites.
- (28) **Jura Limestone.** Jura.
Jurakalk.
Calcaire Jurassique.
- (29) **Oxford Oolite.** Jura (England).
Oxford-Oolith.
Oolithe d'Oxford.
- (30) **Cornbrash.** Jura.
Plassenkalk.
Cornbrash.
- (31) **Bath Oolite.** Jura.

Grande Oolithe (Oolithe de Bath).
- (32) **Inferior Oolite.** Jura.
Vilzer Kalk.
Oolithe inférieure.

Limestone Group.

- | | | |
|------|--|--------------------------|
| (33) | Lias Limestone.
Leias-Kalk.
<i>Calcaire liasique.</i> | Lias. |
| (34) | Gryphite Limestone.
Gryphitenkalk.
<i>Calcaire à Gryphites.</i> | Lias. |
| (35) | Belemnitic Limestone.
Belemnitenkalk.
<i>Calcaire à Bélemnites.</i> | Lias. |
| (36) | Dachsteinkalk. | Lias (Northern Alps). |
| (37) | Klippenkalk. | Uncertain (Carpathians). |
| (38) | Hallstätter Kalk. | Keuper (Alps). |
| (39) | Muschel Kalk.
Muschelkalk.
<i>Muschel Kalk.</i> | Muschelkalk. |
| (40) | Wellenkalk. | Muschelkalk (Germany). |
| (41) | Guttensteiner Kalk. | Muschelkalk (Alps). |
| (42) | Encrinal or Encrinital Limestone.
Encriniten- oder Trochitenkalk.
<i>Calcaire à Encrines.</i> | Muschelkalk. |

Limestone Group.

- (43) **Terebratula Limestone.** Muschelkalk.
Terebratulakalk.
Calcaire a Térébratules.
- (44) **Roestone.** Variegated Sandstone.
Rogenstein.
- (45) **Zechstein Kalk.** Zechstein (Germany).
Zechsteinkalk.
Calcaire du Zechstein.
- (46) **Magnesian Limestone.** Zechstein (England).
Magnesian-Limestone.
Calcaire magnésien.
- (47) **Carboniferous Limestone, or Mountain Limestone.** Coal formation.
Kohlenskalk oder Bergkalk.
Calcaire carbonifère.
- (48) **Scar Limestone.** Coal formation.
- (49) **Transition or Graywacke Limestone.** Transition.
Grauwackenkalk oder Uebergangskalk.
Grauwacke calcaire.
- (50) **Stringocephalus Limestone.** Devonian.
Stringocephalenskalk.
Calcaire à Stringocéphales.
- (51) **Eifel Limestone.** Devonian.
Eifler Kalk.
Calcaire Eifélien.
- (52) **Orthoceras Limestone.** Silurian,
Orthoceratitenkalk.
Calcaire à Orthocératites.

Limestone Group.

(53)

Urkalk (Aboriginal Limestone).

More ancient.

36. Dolomite (Magnesian Limestone).

Bitter spar, usually with some Calc spar.

Dolomit.

*Dolomie.***Varieties in Texture.****(a) Granular Dolomite.***Dolomie saccharoïde.***(b) Compact Dolomite.***Dolomie compacte.***(c) Earthy Dolomite.**

Erdiger Dolomit.

*Dolomie grossière.***(d) Porous Dolomite.****(e) Cellular Dolomite.**

With angular cavities.

*Cargneule.***(f) Breccian Dolomite, or Dolomite Breccia.***Brèche dolomitique.***(g) Concretionary Dolomite.***Dolomie concrétionnée.***Varieties in Composition.****(h) Chromic Dolomite.**

Green from admixture of Chrome.

Limestone Group.

- (i) **Dolomite of the Binnen Thal (Alps).** Granular, with rich combination of mineral ingredients.

- (k) **Predazzite (from Pedazzo, in Tyrol).** A transmuted product of Syenitic Granite.
Predazzit.
Predazzite.

Geological Varieties.

- (1) **Coralline Dolomite.** Jura.
Korallendolomit.
Dolomie corallienne.
- (2) **Alpine Dolomite (principal Dolomite of the Northern Alps).** Lower Lias.
Dolomie alpine (Cargneules).
- (3) **Keuper Dolomite.** Keuper.
Keuperdolomit.
- (4) **Flammen Dolomite.** Keuper.
Flammendolomit.
Dolomie rouge.
- (5) **Myophoria Dolomite.** Lower Keuper.
Myophorien-Dolomit.
- (6) Upper Muschelkalk (Swabia).
Malbstein or Nagelfels.
- (7) Wellendolomit (Wavy Dolomite). Lower Muschelkalk (Germany).
- (8) **Magnesian Limestone.** Magnesian Limestone (Zechstein).
Calcaire magnésien.

Limestone Group.

(9)

Zechsteindolomit (Rauhwaacke).

Zechstein (Germany).

(10) Dolomitic Ash.

Dolomit-Asche.

Zechstein.

37. Gypsum.

Gyps.

*Gypse.***Varieties in Texture.**

(a) Granular Gypsum or Alabaster.

Körniger Gyps oder Alabaster.

Gypse saccharoïde.

(b) Porphyritic Gypsum.

(c) Compact Gypsum.

Gypse compacte.

(d) Fibrous Gypsum.

Fasergyps.

Gypse fibreux.

(e) Spathic or Sparry Gypsum, or Selenite.

Späthiger Gyps oder Blättergyps.

Gypse lamelleux.

(f)

Gekrösestein.

Stratified and contorted.

Varieties in Composition.

(g) Argillaceous Gypsum.

Thongyps.

Marne gypseuse.

Limestone Group.(h) **Bituminous Gypsum.**

Bituminöser Gyps.

Gypse bitumineux.(i) **Micaceous Gypsum.**

Glimmergyps.

*Gypse niviforme.***38. Anhydrite (Muriacite, Karstenite).**

Anhydrit (Muriacit, Karstenit).

*Anhydrite.***Fragmental Rocks.****39. Sandstone and Gritstone.**

Sandstein, Psammit.

Grès.

Quartz, cemented together by mineral substance.

Varieties in Texture.(a) **Common Sandstone.***Grès commun.*(b) **Coarse-grained Sandstone.***Grès à gros grains.*(c) **Fine-grained Sandstone.***Grès à grains fins.*(d) **Crystallized Sandstone.***Grès cristallisé.*(e) **Fissile Sandstone.**

Schiefriger Sandstein oder Sandsteinschiefer.

Grès fissile.

Fragmental Rocks.

- (f) **Globular Sandstone.** With globular concretions in a dull matrix.
 Kugelsandstein.
Grès noduleux.

Varieties in Composition.

- (g) **Argillaceous Sandstone.** With cementing medium of Clay.
 Thoniger Sandstein oder Thonsandstein.
Grès argileux.
- (h) **Marly Sandstone.**
 Mergeliger Sandstein oder Mergelsandstein.
Grès marneux.
- (i) **Calcareous Sandstone.**
 Kalkiger Sandstein oder Kalksandstein.
Grès calcifère.
- (k) **Siliceous Sandstone.**
 Kieselsandstein.
Grès siliceux.
- (l) **Ferruginous Sandstone.**
 Eisensandstein oder eisenschüssiger Sandstein.
Grès ferrugineux.
- (m) **Kaolin Sandstone (white).** With cementing medium of Kaolin.
 Kaolinsandstein.
- (n) **Talcose Sandstone.** With cementing medium of Tale.
 Talksandstein.
Grès talcifère.
- (o) **Asphaltic Sandstone.**
 Asphaltsandstein.
Grès bitumineux.
- (p) **Quartz Sandstone. Quartz psammit. Quartz Grit.** *Naumann.*
 Quarzsandstein. With grains of Quartz.
Grès quartzeux.

Fragmental Rocks.

- (q) **Micaceous Sandstone. Micaceous Grit.** With laminæ of Mica and
Glimmersandstein. Mico Psammit. *Naumann.* grains of Quartz.
Psammite (Grès micacé). Brongniart.
- (r) **Arkose or Felspathic Sandstone.** With grains of Felspar.
Arkose.
Arkose.
- (s) **Green Sandstone.** With grains of Glauconite.
Grünsandstein.
Grès vert.
- (t) **Shell Sandstone.** With fragments of Shells.
Muschelsandstein.
Grès coquillier.

Geological Varieties.

- (1) **The most recent Marine Sandstone.** Recent.
Neuester Meeressandstein.
- (2) **Blättersandstein.** Tertiary (Mayence basin).
- (3) **Molasse Sandstone.** Molasse (Alps).
Molassesandstein.
Grès molasse.
- (4) **Braunkohlensandstein.** Miocene (Germany).
- (5) **Bagshot Sand.** Eocene.
- (6) **Thanet Sand.** Eocene.

Fragmental Rocks.

- (7) Wiener Sandstein (Vienna Sand). Eocene and older.
- (8) Karpathensandstein (Carpathian Sandstone). Eocene and older.
- (9) **Fucoidal Sandstone.**
Fucoidensandstein. With Fucoids.
Grès à Fucoides.
- (10) **Nummulitic Sandstone.** With Nummulites.
Nummulitensandstein.
Grès nummulithique.
- (11) Ralligsandstein. Eocene in Switzerland.
- (12) **Taviglianaz Sandstone.** Eocene in Switzerland.
Taviglianaz-Sandstein.
- (13) **Macigno.** Eocene in Italy.
Macigno.
Macigno.
- (14) Quadersandstein. Quader formation (Germany).
- (15) **Greensand (Upper and Lower).** Chalk.
Greensand.
Grès vert (supérieur et inférieur).
- (16) Hilssandstein. Chalk (Westphalia).

Fragmental Rocks.

- (17) Tassello. Chalk (Istria).
- (18) Deistersandstein. Wealden.
- (19) Hastings Sand. Wealden.
- (20) Moorland Sand. Wealden.
- (21) Dogger. Jura (Westphalia).
- (22) Lias Sandstone. Lias.
Leiassandstein.
Grès liasique.
- (23) Cardinia Sandstone. Thalassiten-Sandstein.
- (24) Keupersandstein. Keuper (Germany).
- (25) Schilfsandstein. Upper Keuper (Swabia.)
- (26) Variegated Sandstone. Variegated Sandstone formation.
Buntsandstein.
Grès bigarré.

Fragmental Rocks.

(27)

Grès Vosgien.

Variegated Sandstone formation (French).

(28) **Red Sandstone of the Alps (Verrucano).**

Rother Alpensandstein.

*Grès rouge des Alpes.*Variegated Sandstone
formation.(29) **New Red Sandstone.**

New Red Sandstone.

(30) **Newent Sandstone.**

New Red Sandstone.

(31)

Weiss- oder Grauliegendes. (Sanderz, with copper.) Zechstein (Thuringia).

(32) **Cupriferous Sandstone.**

Kupfersandstein.

Grès cuprifère.

Permian (Russia).

(33)

Rother Sandstein.

Rothliegende.

(34) **Carboniferous Sandstone.**

Kohlensandstein.

Grès houiller.

Coal formation.

(35) **Millstone Grit.**

Flötzleerer Sandstein.

Grès à meules.(36) **Old Red Sandstone.**

Grauwacker Sandstein oder körnige Grauwacke.

Vieux grès rouge.

Fragmental Rocks.

- (37) **Baggy Point Sandstone.** *Page.* Upper Devonian.
- (38) **Dura-Den Sandstones (with holoptychii and pterichthys).** *Page.* Upper Devonian (Fifeshire).
- (39) **Dunse Sandstones (red and white).** *Page.* Upper Devonian (Scotland).
- (40) **Berwick and Roxburgh Sandstones (red).** Middle Devonian.
- (41) **Hereford, Cumberland, Fife, &c. (with gigantic holoptychii).** Middle Devonian.
- (42) **Caithness Flags, bituminous, argillaceous, and micaceous (celebrated for the abundance and variety of their fossil fishes).** Lower Devonian.
- (43) **Spiriferensandstein.** (Rhine and Hartz.) Lower Devonian.
Grès à Spirifers.
- (44) **Flagstones of Forfar (with cephalaspis, cheiracanthus, and pterygotus).** Lower Devonian.
- (45) **Ludlow Sandstone (micaceous, gray).** Upper Silurian.
- (46) **Wenlock Sandstone (Upper Llandovery, gritty).** Upper Silurian.

Fragmental Rocks.

- (47) Caradoc Sandstone (frequently Quartzite). Lower Silurian.
- (48) Llandeilo and Lingula Flags (laminated Sandstone, rich in Mica). Lower Silurian.
- (49) Stiper Stones (Shropshire). (Siliceous Sandstone, passing into Quartz Rock.) Cambrian.

Appendix to Sandstone.

Sand.

Sand.

Sable.

40. Conglomerate (Puddingstone). Pebbles cemented together by media of various kinds.
 Conglomerat (Pouddingstein).
Conglomérat (Pouddingue).

Geological Varieties.

- (1) Nagelfluë. Molasse formation.
 Nagelfluhe.
Conglomérat Alpin.
- (2) Plänerconglomerat. Quader formation (Saxony).
- (3) Hilsconglomerat. Hils formation (Westphalia).
- (4) *Conglomérat vosgien.* Lower variegated Sandstone (French).

Fragmental Rocks.

- (5) Conglomerat des Weissliegenden. Zechstein (Thuringia).
- (6) Conglomerat des Rothliegenden. Rothliegende (Germany).
- (7) Graues Conglomerat. (Gray Conglomerate). Rothliegende (Saxony).
- (8) Conglomerat von Hainichen. (Saxony.) Carboniferous Limestone.
- (9) Graywacke Conglomerate. Devonian and Silurian.
 Grauackenconglomerat.
Gräuwacke grossière.

Appendix.

Boulders and Pebbles.
 Geschiebe und Gerölle.

41. Breccia. Angular fragments of Minerals, cemented together by some binding medium.
 Breccie.
Brèche.

Geological Varieties.

- (1) Friction Breccias. Reibungsbreccien.
Brèches de filon (de frottement).
- (2) Quartz Pebble Rock. Quartz with Quartz fragments.
 Quarzbrockenfels.
Brèche siliceuse.

Fragmental Rocks.

- (3) **Bone Breccia.** Chiefly of fossil fragments of bones.
 Knochenbreccie.
Brèche à ossements.
- (4) **Haselgebirge.** A breccia found in the neighbourhood of Rock Salt formations
 in the Northern Alps.

Appendix.

- Topaz Rock.**
 Topaz fels.
Topazolithe (Topazogème). Brongniart.
42. **Tufa or Tuff.** Accumulations of Lapilli, Fragments, Ash, or other volcanic substances.
 Tuffbildungen.
Tuf.
- (A) **Volcanic Tufas, Basaltic and Trachytic.**
- (a) **Peperino.** Albanian mountains.
 Peperin.
Peperino.
- (b) **Basalt Tufa and Basalt Conglomerate, or Breccia.** Fragments of Basalt
 Basalttuff und Basalt-Conglomerat oder Breccie. in Basalt.
Tuf basaltique, Conglomérat basaltique.
- (c) **Palagonite Tufa.** A variety of Basalt Tufa.
 Palagonittuff.
Palagonite.
- (d) **Puzzulana.** Volcanic Sand, coherent.
 Puzzulan.
Pouzzolane.
- (e) **Trachyte Tufa, Trachyte Conglomerate, Trachyte Breccia.** Trachyte
 Trachyttuff, Trachyt-Breccie und Conglomerat. pebbles in Trachyte.
Tuf trachytique, Conglomérat trachytique.

Fragmental Rocks.

- (f) **Pumiceous Tufa, Pumiceous Sand, and Conglomerate.**
 Bimssteintuff, Bimsstein-Sand und Conglomerat.
Tuf ponceux, Conglomérat ponceux.
- (g) **Trass (Rhine), Pausilipp Tufa (Sicily), Tosca (Teneriffe).** Local
 Trass (Duckstein), Pausilippuff, Tosca. varieties of pumiceous Tufa.
Trass, Tuf du Pausilippe.
- (h) **Alum Stone, Alum Rock (Tolfa).** Trachytic.
 Alaunstein, Alaunfels, Tolfa.
Alunite de la Tolfa.
- (i) **Phonolite Tufa, and Conglomerate.**
 Phonolittuff und Conglomerat.
Tuf phonolithique, Conglomérat phonolithique.

(B) Tuff Formations of Plutonic Rocks.

- (k) **Porphyry Tuff, or Felsite Tuff. (Felspathic Ash.)** *Jukes.*
 Porphyrtuff oder Felsittuff.
Tuf Porphyrique ou Felspathique.
- (l) **Greenstone Tuff, and Greenstone Conglomerate. (Greenstone Ash.)**
 Grünsteintuff und Grünsteinconglomerat.
Tuf dioritique et Conglomérat dioritique.

43. Schalstein. Laminated rock of various character with particles of Calcareous Spar.
 Schalstein.

Varieties.

- (A) **Schalstein, or Blatterstein Shale.** (In Nassau.)
 Schalstein oder Blattersteinschiefer.

- (a) **Normal Schalstein.**

Fragmental Rocks.

- (b) **Calcareous Schalstein.**
 - (c) **Schalstein Breccia.**
 - (d) **Schalstein Conglomerate.**
 - (e) **Schalstein Amygdaloid.**
 - (f) **Porphyritic Schalstein, with crystals of Labradorite.**
- (B) **Schalstein, or Calc Trap.** *Opperman.*
- (C) **Schalstein of Zelle, near Nossen.**
Schalstein von Zelle bei Nossen, oder schalsteinähnlicher Thonschiefer.

Appendix.**Laterite.**

(East India.)

IV.—ROCKS OF SPECIAL CHARACTER OR BEDDING.

Serpentine Group.

44. Serpentine (Ophiolite).
Serpentin (Ophiolith).
Serpentine.

Varieties in Texture.

- (a) Common compact Serpentine.

Serpentine compacte.

- (b) Porphyritic Serpentine.

Serpentine porphyroïde.

- (c) Slaty Serpentine.

Serpentine schisteuse.

- (d) Veined Serpentine.

Serpentine bréchiforme (Ophiolithe). Brongniart.

(e)

Forellenstein (Trout-stone).

(Neurode.)

- (f) Renslaerite. *Emmons.*

(g)

Schillerfels.

(Harz.)

Bastite.

Garnet Group.

45. **Eklogite (Omphacite Rock, Smaragdite Rock, Disthene Rock).** Green Smaragdite and Red Garnet.
 Eklogit (Omphacitfels, Smaragditfels, Disthenfels).
Eklogite (Omphazite). Haüy.
46. **Eulisite.** Protoxide of Iron, Green Pyroxene and Brownish-red Garnet.
 Eulisit.
Eulisite.
47. **Garnet Rock.** Garnet and Hornblende, usually with some Magnetic Iron ore and Lime.
 Granatfels.
Arendalite. E. Fuchs.
48. **Kinzigite.** Black Mica, Garnet and Oligoclase.
 Kinzigit.
Kinzigite.
49. **Dichroite Rock.** Felspar, Dichroite Garnet and Mica.
 Dichroitfels.

Greisen and Schorl Group.

50. **Greisen.** Quartz and Mica.
 Greisen.
Hyalomict. Brongniart.
51. **Zwitter Rock.** Principally Quartz.
 Zwittergestein (Stockwerksporphyr).
52. **Schorlaceous Schist, and Schorl Rock.** Schorl and Quartz.
 Schörlschiefer und Schörlfels.
Hyalotourmalithe.
- (a) **Schorlaceous Schist.**
- (b) **Granular Schorl Rock.**

Greisen and Schorl Group.(c) **Compact Schorl Rock.**(d) **Topaz Rock.**

Topasfels.

*Topazolithe (Topazogème). Brongniart.***Carbonaceous Group.****53. Peat, Turf, Bog.**

Torf, Darg.

*Tourbe.***Varieties.**(a) **Peat Moss.**

Loose, felt-like.

Filz- oder Moostorf.

Tourbe fibreuse.(b) **Heath Turf.**

Haidetorf.

(c) **Grass Turf.**

Rasentorf.

(d) **Leaf Turf.**

Papiertorf oder Blättertorf.

(e) **Mud Turf.**

Very wet.

Baggertorf.

(f) **Pitch Turf.**

Pechtorf.

Tourbe compacte (limoneuse).

Carbonaceous Group.**54. Brown Coal or Lignite.**

Braunkohle und Lignit.

*Lignite.***Varieties.**

- (a) **Common Brown Coal.** Compact.
Gemeine dichte Braunkohle (Stückkohle).
Lignite compacte. Fayet.
- (b) **Earthy Brown Coal.** Easily pulverized.
Erdige Braunkohle (Streichkohle).
Lignite terreux.
- (c) **Resinous Brown Coal.**
Pechbraunkohle.
Lignite résineux.
- (d) **Lignite (Bituminous Wood).** Retains the woody texture.
Lignit, bituminöses Holz.
Lignite bitumineux.
- (e) **Leaf Coal or Dysodile.**
Blätterkohle, Papierkohle, oder Dysodil.
Lignite schistoïde ou Dysodil.
- (f) **Moor Coal.**
Moorkohle (Streichkohle).
Lignite piciforme.

Varieties in Composition.

- (g) **Common Brown Coal.** Bituminous.
- (h) **Brown Coal with little Bitumen.**
- (i) **Impure Brown Coal.** Argillaceous.

Carbonaceous Group.(k) **Alum Earth.**

Alaunerde.

*Terre alumineuse.***55. Common Coal, Black Coal, or Pit Coal.**

Schwarzkohle oder Steinkohle.

Houille.

Principally Carbon, less Bitumen than

Brown Coal.

Principal typical Varieties in England.(1) **Caking Coal.**(2) **Splint, or Hard Coal.**(3) **Cherry, or Soft Coal.**(4) **Cannel, or Parrot Coal.****Principal typical Varieties in Germany.**

(a)

Gemeine Steinkohle.

(b)

Pechkohle.

(c)

Kännelkohle (Gagat).

(d)

Schieferkohle.

(Bituminous Shale.)

Carbonaceous Group.

- (e) Russkohle. (Sooty Coal.) A compound of Coal and Anthracite.

Classification according to Derivation. Geinitz.

- (a) Farnenkohle (Fern Coal).

- (β) Calamitenkohle.

- (γ) Sigillarienkohle.

- (δ) Sagennarienkohle.

Principal typical Varieties in France. Leplay.

- (A) *Houille sèche.*

- (B) *Houille maréchale.*

- (C) *Houille grasse.*

- (D) *Houille maigre.*

56. **Anthracite.** Consists almost entirely of Carbon, free from Bitumen.
 Anthracit oder Glanzkohle.
Anthracite.

57. **Graphite, Plumbago.** Pure Carbon.
 Graphit.
Graphite.

Carbonaceous Group.

58. **Bitumen and Mineral Pitch.** Carbon, Hydrogen, Oxygen, and Nitrogen.
 Bitumen und Erdpech (Asphalt).
Bitume (Poix, Asphalte).
59. **Brandschiefer, Bituminous Shale.** Bitumen and Clay.
 Brandschiefer.
Schiste bitumineux.
60. **Burnt Clays.** Produced by burning Coal-beds.
 Gebrannte Thone (Kohlenbrandgesteine, Erdschlacken und Porzellanjaspis).
Argiles métamorphiques.
- (a) **Burnt Argillaceous Shale.**
 Gebrannter Schieferthon.
Argile schisteuse métamorphique.
- (b) **Rockslag.** (Scoriaceous.)
 Erdschlacke (Kohlenbrandschlacke).
Glaise.
- (c) **Porcelain Jasper, Porcelanite.** Somewhat vitrified.
 Porzellanjaspis.
Porcelanite (Argile siliceuse métamorphique).
61. **Guano and other Coprolite Beds.**
 Guano und andere Kopolithenlager.
Guano, Coprolite.
- (a) **Guano.** Excrements of birds.
 Guano.
Guano.
- (b) **Coprolite Beds.** Excrements of fishes, &c.
 Kopolithenlager.
Coprolite.
- (c) **Black Earth.** Clay, with various organic admixtures.
 Schwarzerde (Tschornosem).

Ironstone Group.**62. Brown Hematite.**

Brauneisenstein.

Hématite Brune.

Brown Iron ore (Limonite).

Varieties in Texture.**(a) Compact Brown Hematite.***Hématite brune compacte.***(b) Scaly and Ochry Brown Iron Ore (Yellow Ochre).**

Erdiger Brauneisenstein oder Eisenocker.

*Ocre jaune.***(c) Fibrous Brown Iron Ore or Glaskopf.**

Fasriger Brauneisenstein oder Glaskopf.

*Hématite brune concrétionnée fibreuse.***(d) Reniform Iron Ore.**

Nieren erz (Reinerz, Stockerz).

(e) Pea Ore.

Bohnerz.

*Minerais en grains.***(f) Oolitic Brown Ore.**

Oolithischer Brauneisenstein.

*Minerai brun oolithique.***(g) Bog Ore.**

Raseneisenstein (Sumpferz, Quellerz, Morasterz, Wiesenerz, Limonit).

*Minerais de marais (Limonite).***Varieties in Composition.****(h) A variety rich in Manganese (Black Ironstone).**

Manganreicher Brauneisenstein (Schwarzeisenstein).

*Hématite brune foncée, riche en Manganèse.***(i) An Argillaceous variety (Brown or Yellow Clay Ironstone).**

Thonreicher Brauneisenstein (Thoneisenstein).

Ironstone Group.

- (k) **A Siliceous variety, passing into brown ferruginous Quartz.**
 Kieselreicher Brauneisenstein.
Hématite brune siliceuse (jaspoïde).

63. Red Hematite.
 Rotheisenstein.
Hématite rouge.

Varieties in Texture.

- (a) **Common Red Hematite.** Compact.
Hématite rouge compacte.
- (b) **Earthy Hematite, or Red Iron Mould.**
 Erdiger Rotheisenstein oder rother Eisenmulm.
- (c) **Fibrous Hematite, Reddle.**
 Fasriger Rotheisenstein, Röthel oder rother Glaskopf.
Hématite rouge fibreuse.
- (d) **Oolitic Hematite, or Ferruginous Oolite.**
 Oolithischer Rotheisenstein oder Eisenoolith.
Hématite rouge oolithique.
- (e) **Micaceous Iron Schist.**
 Eisenglimmerschiefer.
Hématite rouge micacée schisteuse.
- (f) **Specular Iron.**
 Eisenglanzgestein.
Fer spéculaire.

Varieties in Composition.

- (g) **A variety rich in Manganese (Black Hematite).**
 Manganreicher Rotheisenstein (Schwarzisenstein).
Hématite rouge foncée, riche en Manganèse.
- (h) **Red Clay Ironstone, Red Ochre.**
 Thonreicher Rotheisenstein (Thoneisenstein).
Ocre rouge.

Ironstone Group.

- (i) **Siliceous Hematite.**
 Kieselreicher Rotheisenstein.
Hématite rouge siliceuse (jaspoïde).
- (k) **Itaberite.** Specular Iron, Micaceous Iron, Magnetic Iron, Quartz.
 Itaberit.
Itabérite.
- (l) **Topanhoacanga (Moorshead Rock).** Ditto, in Brazil.

64. Magnetic Ironstone, Magnetite.
 Magneteisenstein.
Magnétite.

Varieties in Texture.

- (a)
- Granular.**

Granulaire.

- (b)
- Compact.**

Compacte.

- (c)
- Schistose.**

*Schisteuse.***Varieties in Composition.**

- (d) **Pure Magnetic Iron Ore.**
- (e) **Chloritic Magnetic Ironstone.**
- (f) **Chromic Ironstone.**

Ironstone Group.(g) **Garnetiferous Ironstone.**(h) **Pyrito-magnetic Ironstone.**(i) **Catawbirite.** (South Carolina.) **Magnetic Iron and Talc.**

65. Spathic Iron (Siderite).
 Spatheisenstein (Siderit).
Fer spathique.

Varieties in Texture.(a) **Granular.***Granulaire.*(b) **Very fine-grained.***À grains fins.*(c) **Compact, Sphaerosiderite.**
 Dichter Spatheisenstein, Sphärosiderit.
Sidérose compacte.(d) **A shaly variety of Sphaerosiderite, or Carboniferous Ironstone.**
 Schieferiger Sphärosiderit oder Kohleneisenstein.**Varieties in Composition.**(e) **Rohwand.** A granular spathic Ironstone, with Aukenite or Calcspa.(f) **Argillaceous Sphaerosiderite, or Clay Ironstone.**
 Thonreicher Sphärosiderit oder Thoneisenstein.
Septaria argileux.

Ironstone Group.**(g) Carboniferous Ironstone (Blackband).**

Kohleneisenstein.

*Septaria carbonifère.***66. Disilicate of Protoxide of Iron.**

Halbkieselsaures Eisenoxydul.

Chamoisite.

(Chamoison, Valais).

67. Siliceous Spherosiderite.

Kieseliger Sphärosiderit.

*Carbonate de fer siliceux.*Spherosiderite (with Manganese) and Siliceous earth
or Quartz sand.

V.—MINERALS AS ROCKS.

68. **Ice.**
Eis.
Glace.
69. **Opal.** (2)
Opal.
Opale.
- (a) **Siliceous Sinter, or Siliceous Tuff.**
Kieselsinter oder Kieseltuff.
Tuf siliceux (Geysérite).
- (b) **Semi-Opal.**
Halbopal.
Sémi-Opale.
- (c) **Menilite.**
Menilit.
Ménilite. (Ménilmontant—Paris).
- (d) **Polishing Slate, Tripoli.**
Polirschiefer (Saugschiefer, Klebschiefer, Trippel).
Tripoli.
- (e) **Kieselguhr.**
Kieselguhr.
Silice pulvérulente.
70. **Quartz.** (1)
Quarz.
Quartz.
- (a) **Rock Crystal and Amethyst.**
Bergkrystall und Amethyst.
Crystal de Roche et Améthyste.

- (b) **Common Quartz.**
Quartz commun.
- (c) **Ferruginous Quartz.**
Eisenkiesel.
Quartz ferrugineux.
- (d) **Hornstone, Chert.**
Hornstein, Hornfels.
Amas siliceux.
- (e) **Lydian Stone, or Lydite, Black Chert.**
Kieselschiefer oder Lydit.
Quartz lydien.
- (f) **Jasper.**
Jaspis.
Jaspe.
- (g) **Agate.**
Achat.
Agate.
- (h) **Flint.**
Feuerstein, Flint.
Silex.
71. **Corundum.** (3)
Korund oder Schmirgel.
Corindon.
72. **Fluor Spar.** (109)
Flusspath.
Fluorine (Spathfluor).
73. **Rock Salt.** (107)
Steinsalz.
Sel gemme.

- (a) **Granular Rock Salt.**
Körniges Steinsalz.
Sel gemme granulaire.
- (b) **Sparry Rock Salt.**
Blättriges Steinsalz.
Sel gemme laminaire (spathique).
- (c) **Fibrous Rock Salt.**
Fasriges Steinsalz.
Sel gemme fibreux.
- (d)
Knistersalz.
- (e)
Grünsalz, Spizasalz, Szybiker Salz.
74. **Trona.** (91)
Trona.
Sesqui-carbonate de soude.
75. **Alunite, or Alum-stone.** (75)
Alunit oder Alaunstein.
Alunite.
76. **Barytes or Heavy Spar.** (66)
Baryt oder Schwerspath.
Barytine ou Spath pesant.
77. **Boracite (Stassfurtite).** (76)
Boracit (Stassfurtit).
Boracite (Stassfurtite).
78. **Phosphorite.** (78)
Phosphorit.
Chaux phosphatée (Apatite).

79. **Cryolite.** (110)
Kryolith.
Cryolite.
80. **Aragonite.** (90)
Aragonit.
Aragonite.
81. **Ankerite.** (86)
Ankerit.
Ankërite.
82. **Magnesite.** (85)
Magnesit.
Magnésie carbonatée.
83. **Diallogite, Carbonate of Manganese.**
Manganspath.
Diallogite.
84. **Malachite.** (93)
Malachit.
Malachite.
85. **Talc, or Steatite.** (26)
Talk oder Speckstein.
Talc ou Stéatite.
86. **Meerschaum.** (27)
Meerschaum.
Ecume de mer (Magnésite).
87. **Agalmatolite, or Figure-stone.**
Agalmatolith oder Bildstein.
Agalmatolithe.
88. **Kaoline, or Porcelain Earth.** (9)
Kaolin oder Porzellanerde.
Kaolin.

89. **Lithomarge.**
Steinmark.
Lithomarge.
90. **Orthoclase.** (4)
Orthoklas.
Orthose.
91. **Pycnite.** (42)
Pyknit.
Pycnite.
92. **Epidosite, or Pistacite Rock.** Epidote and Quartz.
Epidosit, oder Pistazitfels.
Epidosite.
93. **Lepidolite, Lithia Mica.** (19)
Lepidolith, Lithionglimmer.
Lépidolite (Mica à Lithine).
94. **Rock Soap.** (22)
Bergseife.
Pierre de Savon.
95. **Bole.**
Bol.
Bole.
96. **Walkerde.**
Walkerde.
Terre à foulon.
97. **Ferreo-Lithomarge.**
Eisensteinmark.
98. **Yellow Earth, or Melinite.** (Al Si + 2 Fe Si + 6 H)
Gelberde.

99. **Galmey.** (40)
 Galmei.
Calamine.
100. **Rhodonite (in part) Manganese Spar (Bisilicate of Manganese).**
 Kieselmangan oder Mangankiesel.
Rhodonite (Manganèse silicaté).
101. **Lievrite or Ilvaite.** (45)
 Liëvrit oder Ilvait.
Ilvaite.
102. **Manganese Ores.**
 Manganerze.
Minerais de Manganèse.
103. **Red Zinc Ore.**
 Rothzinkerz.
Mineral rouge de Zinc (Franklinite).
104. **Galena.** (111)
 Bleiglanz.
Galène.
105. **Antimony-glance.**
 Antimonglanz.
Antimoine.
106. **Arsenical Pyrites, Mispickel.** (118)
 Arsenkies.
Pyrites arsénicales.
107. **Marcasite, or Hydrous Pyrites.** (116)
 Markasit oder Wasserkies.
Marcassite.

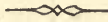
108. Pyrites. (115)
Schwefelkies, Pyrit.
Pyrites.
109. Cinnabar. (113)
Zinnober.
Cinabre.
110. Sulphur. (120)
Schwefel.
Soufre.

102. Lyones
Schweizerische Eidgenossenschaft
Lyones

103. Genéve
Canton de Genève
Genève

110. Belgique
Belgique
Bruxelles

I N D E X.



<p><i>Acerdèse</i> Page 14</p> <p>Achat 5, 94</p> <p>Actinolite 6</p> <p> „ Glassy 6</p> <p> „ Schist 46</p> <p>Actinolithschiefer 46</p> <p><i>Actinote</i> 6</p> <p><i>Adulaire</i> 5</p> <p>Adular 5</p> <p> „ -gneiss 41</p> <p> „ -granit 35</p> <p> „ -protogin 35</p> <p>Adularia 5</p> <p> „ Gneiss 41</p> <p> „ Granite 35</p> <p> „ Protogine 35</p> <p>Agalmatolite 96</p> <p>Agalmatolith 96</p> <p><i>Agalmatolithe</i> 96</p> <p>Agate 5, 94</p> <p><i>Agate</i> 5, 94</p> <p>Aktinolith 6</p> <p>Alabaster 68</p> <p> „ Selenite 12</p> <p>Alabaster 12, 68</p> <p>Alaun 12</p> <p>Alaunerde 85</p> <p> „ -fels 79</p> <p> „ -schiefer 48</p> <p> „ -stein 12, 79, 95</p> <p>Albin 9</p> <p>Albit 6</p> <p><i>Albite</i> 6</p>	<p>Albite Page 6</p> <p>Algäuschiefer 57</p> <p>Allanit 11</p> <p>Allanite 11</p> <p>Allogovit 21</p> <p>Allogovite 21</p> <p><i>Almandine</i> 10</p> <p>Alpensandstein, rother 74</p> <p>Alpinit 42</p> <p>Alpinite 42</p> <p>Alum Earth 85</p> <p> „ Native 12</p> <p> „ Rock 79</p> <p> „ Schist 48</p> <p> „ Stone 12, 79, 95</p> <p><i>Alun</i> 12</p> <p>Alunit 12, 95</p> <p>Alunite 12, 95</p> <p><i>Alunite</i> 12, 95</p> <p> „ <i>de la Tolfa</i> 79</p> <p>Alunogen 12</p> <p>Alunogen 12</p> <p><i>Alunogène</i> 12</p> <p>Amaltheen-Thon 54</p> <p><i>Amas siliceux</i> 94</p> <p>Amber 15</p> <p><i>Ambre</i> 15</p> <p>Amethyst 5, 93</p> <p>Amethyst 5, 93</p> <p><i>Améthyste</i> 5, 93</p> <p><i>Amiante</i> 7</p> <p>Amianth 7</p> <p>Amianthus 7</p>
---	---

Ammonite Limestone	<i>Page</i> 63	Anthrakonit	<i>Page</i> 58
Ammonitenkalk... ..	63	<i>Antimoine</i>	98
<i>Ampélite graphique</i>	50	Antimonglanz	98
Amphibol	6	Antimony-glance	98
<i>Amphibole</i>	6	Apatit	12
Amphibole	6	<i>Apatite</i>	12, 95
Amphibolit	46	Apatite	12
<i>Amphibolithe</i>	46	Aphanit	25
<i>Amphigène</i>	6	„ Kalk-	26
Amphilogite Schist	44	„ -Schiefer	25
Amphilogitschiefer	44	„ variolithischer	26
Amygdaloid	22	Aphanite	25
„ basaltic	20	„ amygdaloidal	26
„ Schalstein	80	„ calcareous	26
<i>Amygdaloïde</i>	20, 22	„ common compact	25
Analcim	8	„ porphyritic	25
<i>Analcime</i>	8	„ slaty	25
Analcime	8	„ variolitic	26
Analcymite	20	„ vesicular	26
Anamesit	19	„ Wacke	26
Anamesite	19	<i>Aphanite</i>	25
<i>Anamésite</i>	19	„ amygdaloïde	26
<i>Andalousite</i>	9	„ lithoïde	25
Andalusit	9	„ porphyroïde	25
Andalusite	9	„ schistoïde	25
Andesit	31	„ vacuolaire	26
<i>Andésite</i>	31	Aphrite	60
Andesite	31	Aplit	35
Anhydrit	11, 69	Aplite	35
<i>Anhydrite</i>	11, 69	Aplome	10
Anhydrite	11, 69	Apophyllite	9
Ankerit	96	Apophyllit	9
<i>Ankérite</i>	96	<i>Apophyllite</i>	9
Ankerite	13, 96	Aptychenkalk	62
Anorthit	6	Aptychia Limestone	62
„ -Diorit	25	Aragon	13
<i>Anorthite</i>	6	Aragonit	13, 96
Anorthite	6	<i>Aragonite</i>	13, 96
„ -Diorite	25	Aragonite	13, 96
Anthracit	86	<i>Arendalite</i>	82
<i>Anthracite</i>	86	<i>Argile</i>	52
Anthracite	86	„ carbonifere	52
Anthraconite	58	„ kimmérienne	54

<i>Basalte avec Néphéline</i>	Page 21	Blätterturf	Page 83
„ <i>lithoïde</i>	20	„ -Zeolit	9
„ <i>porphyroïde</i>	20	Blättersteinschiefer	79
„ <i>schistoïde</i>	21	Blaueisenerde	12
Basaltic Porphyry	20	Blauschiefer	44
Bass	51	Bleiglanz	14, 98
<i>Bastite</i>	7, 81	Blende	14
Batt	51	Blende	14
Belemnitenkalk	64	<i>Blende</i>	14
„ -schiefer	57	Blue Copper	13
<i>Belemnite Marl</i>	57	„ Lead	14
Belemnitic Limestone	64	Bog	83
Beresit	35	„ Ore	88
Beresite	35	Bohnerz	88
Bergkalk	65	Bol	97
„ -krystall	93	<i>Bole</i>	97
„ -seife	97	Bole	97
„ -theer	15	Bone Breccia	78
Bernstein	15	Boracit	12, 95
Beryl	10	Boracite	12, 95
Beryll	10	<i>Boracite</i>	12, 95
Bildstein	96	Borax	12
Bimsstein	6, 32	Borax	12
„ -Conglomerat	79	Boulders	77
„ -Sand	79	Brandschiefer	87
„ -Tuff	79	Brandschiefer	87
<i>Biolite</i>	8	Brauneisenerz	14
Bittersalz	12	Brauneisenstein	14, 88
Bitter Spar	13	„ erdiger	88
Bitterspath	13	„ fasriger	88
<i>Bitume</i>	15, 87	„ kieselreicher	89
Bitumen	15, 87	„ manganreicher	88
Bitumen	15, 87	„ oolithischer	88
Bituminöses Holz	84	„ thonreicher	88
Bituminous Shale	87	Braunit	14
„ Wood	84	<i>Braunite</i>	14
Blackband	92	Braunite	14
Black Chert	94	Braunkohle	84
„ Earth	87	„ erdige	84
Blättergyps	68	„ gemeine dichte	84
„ -kohle	84	„ Pech-	84
„ -sandstein	71	Braunkohlensandstein	71
„ -Talk	8	„ -thon	53

Braunstein	...	...	...	Page 14
Braunstein	...	...	...	14
Braunspath	...	...	...	13
Breccia	...	...	...	77
„ Basalt	...	...	...	78
„ Bone	...	...	...	78
„ Dolomite	...	...	...	66
„ Friction	...	...	...	77
„ Schalstein	...	...	...	80
„ Trachyte	...	...	...	78
Breccian Limestone	...	...	...	60
Breccie	...	...	...	77, 78
„ Basalt-	...	...	...	78
„ Kalk-	...	...	...	60
„ Knochen-	...	...	...	78
„ Reibungs-	...	...	...	77
„ Trachyt-	...	...	...	78
Breccienkalk	...	...	...	60
Brèche	...	...	...	77
„ à ossements	...	...	...	78
„ calcaire	...	...	...	60
„ de filon	...	...	...	77
„ de frottement	...	...	...	77
„ dolomitique	...	...	...	66
„ siliceuse	...	...	...	77
Breunnerit	...	...	...	13
Breunnérite	...	...	...	13
Breunnerite	...	...	...	13
Brick Earth	...	...	...	52
Brown Coal	...	...	...	84
„ common	...	...	...	84
„ earthy	...	...	...	84
„ impure	...	...	...	84
„ resinous	...	...	...	84
„ with little Bitumen	...	...	...	84
Brown Hematite	...	...	...	14, 88
„ compact	...	...	...	88
Brown Iron Ore	...	...	...	14
„ fibrous	...	...	...	88
„ scaly and ochry	...	...	...	88
Brown Ore, Oolitic	...	...	...	88
Brown Spar	...	...	...	13
Buntsandstein	...	...	...	73

C.

Caithness Flags	...	...	Page 75
Calaite	...	...	12
Calamin	...	...	9
Calamine	...	...	9, 98
Calamine	...	...	9
Calamite, Grammatite	...	...	6
Calamitenkohle	...	...	86
Calcaire	...	...	57
„ à Ammonites	...	...	63
„ à Aptychus	...	...	62
„ à Astartes	...	...	63
„ à Bélemnites	...	...	64
„ à Cérites	...	...	61
„ à Dicérites	...	...	63
„ à Encrines	...	...	64
„ à Gryphites	...	...	64
„ à Hippurites	...	...	62
„ à littorinelles	...	...	61
„ à Nérinées	...	...	63
„ à nummulites	...	...	61
„ à orbitolites	...	...	61
„ à Orthocératites	...	...	65
„ à Ostracées	...	...	62
„ arénacé	...	...	59
„ argileux	...	...	58
„ à Serpules	...	...	62
„ à Spatangues	...	...	62
„ à Stringocéphales	...	...	65
„ à Stylolites	...	...	60
„ à Térébratules	...	...	65
„ bitumineux	...	...	58
„ carbonifère	...	...	65
„ caveux	...	...	60
„ celluleux	...	...	60
„ Chert	...	...	59
„ compacte	...	...	58
„ corallien	...	...	61, 63
„ d'eau douce	...	...	61
„ dolomitique	...	...	58
„ du Zechstein	...	...	65

<i>Calcaire Eifélien</i>	Page 65	Cerithium Limestone	Page 61
„ <i>ferrugineux</i>	58	Ceylanit	13
„ <i>fibreux</i>	60	Ceylonite	13
„ <i>géodique</i>	60	<i>Chabasie</i>	9
„ <i>grossier</i>	61	Chabasit	9
„ <i>Jurassique</i>	63	Chabasite	9
„ <i>lacustre</i>	61	<i>Chalcedoine</i>	5
„ <i>liasique</i>	64	Chalcedon	5
„ <i>lithographique</i>	56	Chalcedony	5
„ <i>magnésien</i>	65, 67	Chalcopyrite	15
„ <i>marneux</i>	56, 58	Chalk, Glauconitic	59
„ <i>noduleux</i>	59	„ Lower	62
„ <i>oolithique</i>	59	„ Marl	56
„ <i>pisolithique</i>	59	„ Upper	62
„ <i>Portlandien</i>	62	„ White	59
„ <i>saccharoïde</i>	57	Chalkopyrit	15
„ <i>schisteux</i>	59	<i>Chamoisite</i>	92
„ <i>siliceux</i>	59	<i>Chaux phosphatée</i>	95
„ <i>terreux</i>	59	Chert	5, 94
Calciphyr	58	„ black	94
Calciphyre	58	<i>Chert</i>	5
<i>Calciphyre</i>	58	„ <i>calcaire</i>	59
Calcit	13	<i>Chessylite</i>	13
Calcite	13	Chiastolite Schist	48
<i>Calcite</i>	13	Chiastolith	9
Calcspar	13	„ -schiefer	48
Calc Trap	80	Chilisalpeter	12
<i>Calschiste</i>	49	Chili Saltpetre	12
Carbonaceous Schist	48	Chlorit	8
„ Shale	51	„ -schiefer	45
<i>Carbonate de fer siliceux</i>	92	<i>Chlorite</i>	8
Carboniferous Limestone	65	Chlorite	8
„ Shale	51	„ Schist	45
Cardinia Sandstone	73	Chloritoid Schist	45
<i>Cargneule</i>	66, 67	Chromeisenerz	13
Cassiterite	14	Chromic Iron Ore	13
<i>Cassitérite</i>	14	Chromit	13
Catawbirite	91	<i>Chromite</i>	13
<i>Célestine</i>	11	Chromite	13
Celestine	11	Chrysolite	10
Cerin	11	Chrysolith	10
Cerine	11	<i>Cinabre</i>	14, 99
Cerithienkalk	61	Cinnabar	14, 99

Cinnabarit	Page 14	Columbite	Page 11
Cipolin	57	Comptonit	9
Cipollin	57	Comptonite	9
<i>Cipolline</i>	57	Conglomerat	76
Clay	52	" Basalt-	78
" Barton	53	" Bimsstein-	79
" Bognor	53	" des Rothliegenden	77
" hardened	54	" des Weissliegenden	77
" Kimmeridge	54	" graues	77
" London	53	" Grauwacken-	77
" Oxford	54	" Grünstein-	79
" plastic	53	" Hils-	76
" saliferous	52	" Phonolith-	79
" Speeton	53	" Pläner-	76
" Weald	53	" Trachyt-	78
Clays, burnt	87	" von Hainichen	77
Clay Slate	49	<i>Conglomérat</i>	76
" arenaceous	49	" <i>alpin</i>	76
" calcareous	49	" <i>basaltique</i>	78
" carbonaceous	49	" <i>dioritique</i>	79
" common	49	" <i>phonolithique</i>	79
" micaceous	49	" <i>ponceux</i>	79
Claystone	54	" <i>trachytique</i>	78
" Porphyry	36	" <i>vosgien</i>	76
Clinkstone	33	Conglomerate	76
<i>Clinochlore</i>	8	" Basalt	78
Coal, black	85	" Graywacke	77
" brown, <i>see</i> Brown Coal.		" Greenstone	79
" caking	85	" Phonolite	79
" Cannel	85	" Pumiceous	79
" Cherry	85	" Schalstein	80
" common	85	" Trachyte	78
" hard	80	Copper, blue	13
" leaf	84	" Pyrites	15
" Moor	84	<i>Coprolite</i>	87
" Parrot	85	Coprolite Beds	87
" pit	85	Coral Rag	63
" soft	85	Coral Reefs	61
" Splint	80	Cordierit	11
Cölestin	11	<i>Cordierite</i>	11
Colophonite	10	Cordierite	11
Columbit	11	<i>Corindon</i>	5, 94
<i>Columbite</i>	11	Cornbrash	63

<i>Cornbrash</i>	Page 63	<i>Diabase porphyroïde</i>	Page 22
Corundum	5, 94	„ <i>variolitique</i>	23
<i>Craie</i>	59	Diabase	22
„ <i>à Rudistes</i>	62	„ calcareous	23
„ <i>blanche</i>	59	„ common	23
„ <i>glauconieuse</i>	59	„ fine-grained	22
„ <i>inférieure</i>	62	„ granular	22
„ <i>marneuse</i>	56	„ porphyritic	22
„ <i>supérieure</i>	62	„ schistose	22
Crichtonit	14	„ variolitic	23
Cryolite	14, 96	„ Wacke	23
<i>Cryolite</i>	14, 96	Diallag	7
<i>Crystal de roche</i>	93	<i>Diallage</i>	7
Crystal, Rock	93	Diallage	3
<i>Cuivre pyriteux</i>	15	„ Rock	23
„ <i>vanadiaté</i>	11	<i>Diallagite</i>	23
Cyanit	10	<i>Diallogite</i>	96
Cyrenen-Mergel	56	Diallogite	96
		Diceraskalk	63
		Diceras Limestone	63
		Dichroit	11
		„ -fels	82
		„ -gneiss	42
		Dichroite	11
		„ Gneiss	42
		„ Rock	82
		Diopsid	7
		<i>Diopside</i>	7
		Diopside	7
		Diorit	24
		„ Anorthit-	25
		„ Glimmer-	29
		„ Kalk-	25
		„ Kugel-	24
		„ -Schiefer	24
		Diorite	24
		„ granitoïde	24
		„ lithoïde	24
		„ micacée	29
		„ orbiculaire	24
		„ porphyroïde	24
		„ schistoïde	24
		Diorite	24

D.

Dachschiefer	49
Dachsteinkalk	64
Damourit	7
<i>Damourite</i>	7
Damourite	7
Darg	83
Davyn	6
<i>Davyne</i>	6
Deistersandstein	73
Delessit	8
<i>Delessite</i>	8
Delessite	8
Desmin	9
<i>Desmine</i>	9
Diabas	22
„ Kalk-	23
„ -Schiefer	22
Diabase	22
„ calcaire	23
„ granitoïde	22
„ lithoïde	22

Diorite amygdaloidal	Page 25	<i>Dolomie saccharoïde</i>	Page 66
„ Anorthite-	25	Dolomit	13, 66
„ calcareous	25	„ -Asche	68
„ common	25	„ erdiger	66
„ fine-grained	24	„ Flammen-	67
„ granular	24	„ Keuper-	67
„ Mica	29	„ Korallen-	67
„ orbicular	24	„ -Mergel	35
„ porphyritic	24	„ Myophorien-	67
„ Porphyry	24	„ Wellen-	67
„ Slate	24	„ Zechstein-	68
„ slaty	24	Dolomite	13, 66
„ Wacke	25	„ Alpine	67
Disthen	10	„ Breccia	66
„ -Fels	82	„ Breccian	66
<i>Disthène</i>	10	„ cellular	66
Disthene	10	„ chromic	66
„ Rock	82	„ compact	66
Dogger	73	„ concretionary	66
Dolerine	46	„ coralline	67
Dolerit	19	„ earthy	66
„ Nephelin-	19, 20	„ Flammen	67
„ Trachy-	31	„ granular	66
Dolerite	19	„ Keuper	67
„ amygdaloidal	20	„ Myophoria	67
„ common	19	„ of the Binnenthal (Alps)	67
„ Nepheline	19, 20	„ porous	66
„ porphyritic	19	„ wavy	67
„ scoriaceous	19	Dolomitic Ash	68
„ Trachy	31	<i>Domite</i>	31
„ vesicular	19	Domite	31
„ Wacke	20	Doppelspath	13
<i>Dolérîte</i>	19	Duckstein	79
„ lithoïde	19	Dysodil	84
„ porphyroïde	19	<i>Dysodil</i>	84
„ Trachy-	19	Dysodill	84
<i>Dolomie</i>	13, 66		
„ alpine	67		
„ compacte	66		
„ concrétionnée	66		
„ corallienne	67		
„ grossière	66		
„ rouge	67		
		E.	
		<i>Ecume de Mer</i>	8, 96
		Egeran	10
		Egeran	10

Felspar, common	<i>Page</i> 6	Fraidronite	<i>Page</i> 28
„ compact	6	Franklinite	98
„ Porphyry	27	Fruolitschiefer	48
„ „ amygdaloid	27	Fucoidensandstein	72
„ „ compact	27		
„ „ porphyritic	27		
„ „ Wacke	27		
Felspathic Ash	79		
Felstone	6, 37		
„ Porphyry	36	Gabbro	23
„ proper	37	Gabbro	23
Fer arsénical	15	<i>Gabbro</i>	23
„ <i>spathique</i>	91	Gadolinit	11
„ „ <i>à grains fins</i>	91	<i>Gadolinite</i>	11
„ „ <i>granulaire</i>	91	Gadolinite	11
„ <i>spéculaire</i>	89	Gagat	85
Ferro-Lithomarge	97	Gahnit	13
Ferruginous Granite	35	Gahnite	13
Feuerstein	5, 94	Galena	14, 98
Figure-stone	96	Galena	14
Filztorf	83	<i>Galène</i>	14, 98
Flags, Caithness	75	Galmei	98
Flagstones of Forfar	75	Galmey	98
Flammen Dolomite	67	Garnet	10
Flammendolomit	67	„ Rock	82
„ -Mergel	56	Gekrösestein	68
Fleckenmergel	57	Gelberde	97
„ -Porphyr	37	Gerölle	77
Fleckschiefer	48	Geschiebe	77
Flint	5, 94	<i>Geysérite</i>	93
Flint	94	Giltstein	45
<i>Fluorine</i>	14, 94	<i>Glace</i>	93
Fluorit	14	<i>Glaise</i>	87
Fluor Spar	14, 94	Glanzkohle	86
Flussspath	14, 94	Glaskopf	88
Flysch	51	„ rother	89
Folith	11	Glauberit	12
Forellengranulit	39	<i>Glaubérite</i>	12
„ -stein	81	Glauberite	12
Foyait	29	<i>Glaucanie</i>	8
Foyaite	29	Glaucanite	8
Fraidronit	28	„ Marl	55
<i>Fraidronite</i>	28	Glauber Salt	12
		Glaubersalz	12

Glaukonit	Page 8	Gneiss Protogine	Page 41
„ -Mergel	55	„ red	40
Glimmerdiorit	29	„ Slate	40
„ -gyps	69	„ Stangel	40
„ Kali	7	„ syenitic	41
„ Lithion-	8, 97	„ very fine grained, almost	
„ Magnesia-	8	compact	40
„ -Mergel	55	„ very fine slaty	40
„ -porphyrit	28	„ very rich in Quartz	41
„ -sandstein	71	„ with two kinds of Mica	41
„ -schiefer	42	Gneiss	40
„ „ Chlorit-	43	„ à grains fins	40
„ „ Eisen-	89	„ amphibolique	41
„ „ Falten-	42	„ avec Dichroite	42
„ „ gestreckter	42	„ commun ou normal	40
„ „ Gneiss-	43	„ porphyroïde	40
„ „ Granat-	43	„ rubané	41
„ „ Graphit-	42	„ talqueux	41
„ „ Holz-	42	Gneiss	40
„ „ Kalk-	44	„ Adular-	41
„ „ Knoten-	43	„ Augen-	40
„ „ Lagen-	43	„ Dichroit-	42
„ „ Plan-	42	„ Eisenglimmer-	42
„ „ Thon-	46	„ Freiburger Normal-	40
„ „ „ glimmerreicher	47	„ Glimmer-	41
„ „ verworrenschiefriger	42	„ -glimmerschiefer	43
„ „ Wulst-	42	„ Granit-	41
„ -trapp	28	„ granitähnlicher	41
Gneiss	40	„ Granulit-	41
„ Adularia	41	„ Graphit-	42
„ coarsely fibrous	40	„ grauer	40
„ common Freiberg	40	„ Holz-	40
„ Dichroit	42	„ Lagen-	41
„ Granite	41	„ Mittel-	40
„ granitic	41	„ Oligoklas-	41
„ Granulite	14	„ porphyrtiger	40
„ Graphite	42	„ Protogin-	41
„ grey	40	„ rother	40
„ medium	40	„ Schiefer-	40
„ micaceous	41	„ Stängel-	40
„ „ Iron	42	„ Syenit-	41
„ Oligoclase	41	Gneissit	40
„ porphyritic	40	Gneissite	40

Gneuss	Page 40	Granulit	Page 39
Grammatite Calamite	6	„ bandstreifiger	39
Granat	10	„ Forellen-	39
„ -fels	82	„ gefleckter	39
„ -glimmerschiefer	43	„ glimmerreicher	39
Granit	34	„ Gneiss-	39
„ Eisen-	35	„ Granit-	39
„ Gebirgs-	34	„ schwarzer	39
„ -granulit	39	„ Tourmalin-	39
„ Graphit-	35	Granulite	39
„ -porphyr	35	„ black	39
„ „ chloritischer	36	„ common	39
„ „ glimmerreicher	36	„ Gneiss	39
„ „ granitähnlicher	36	„ granitic	39
„ Rumburger	35	„ micaceous	39
„ Schörl-	35	„ riband-striped	39
„ Schrift-	34	„ schorlaceous	39
Granite	34	„ spotted	39
„ Adularia	35	Graphit	15, 86
„ common	34	„ -glimmerschiefer	43
„ ferruginous	35	„ -gneiss	42
„ gneissic	34	„ -granit	35
„ graphic	34	Graphite	15, 86
„ graphitic	35	„ Gneiss	42
„ porphyritic	34	Graphite	15, 86
„ Porphyry, common	36	Graphitic Granite	35
„ „ chloritic	36	Grauliegendes	74
„ „ granitic	36	Grauwacke calcaire	65
„ „ micaceous	36	„ grossière	77
„ „ without Crystals	36	„ schisteuse	50
„ Rumburg	35	Grauwacke, körnige	74
„ schorlaceous	35	Grauwackenconglomerat	77
„ semi-	35	„ -kalk	65
„ syenitic	34	„ -schiefer	49
Granite	34	Graywacke, Conglomerate	77
„ commun	34	„ Limestone	65
„ gneissique	34	Green Earth	7
„ graphique	34	Greenovit	11
„ porphyroïde	34	Greenovite	11
Granitic Porphyry	35	Greenovite	11
Granitit	35	Greensand	72
Granitite	35	Greensand (Upper and Lower)	72
Granitone	23	Greenstone, Ash	79

Greenstone Conglomerate ...	Page 79	Grossularite	Page 10
„ trachytic	25	Grünerde	7
„ Tuff	79	„ -salz	95
Greenstones	22	„ -sandstein	71
Greisen	35, 82	„ -stein	19
Greisen	82	„ „ basaltischer	19
Grenat	10	„ „ -Conglomerat	79
Grès	69	„ „ -Tuff	79
„ à <i>Fucoides</i>	72	Gryphite Limestone	64
„ à <i>grains fins</i>	69	Gryphitenkalk	64
„ à <i>gros grains</i>	69	Guano	87
„ à <i>meules</i>	74	Guano	87
„ <i>argileux</i>	70	Guano	87
„ à <i>Spirifers</i>	75	Gyps	12, 68
„ <i>bigarré</i>	73	„ bituminöser	69
„ <i>bitumineux</i>	70	„ Blätter-	68
„ <i>calcifère</i>	70	„ Faser-	68
„ <i>commun</i>	69	„ Glimmer-	69
„ <i>coquillier</i>	71	„ körniger	68
„ <i>cristallisé</i>	69	„ -mergel	55
„ <i>cuprifère</i>	74	„ späthiger	68
„ <i>ferrugineux</i>	70	„ Thon-	68
„ <i>fissile</i>	69	Gypse	12, 68
„ <i>houiller</i>	74	„ <i>bitumineux</i>	69
„ <i>liasique</i>	73	„ <i>compacte</i>	68
„ <i>marneux</i>	70	„ <i>fibreux</i>	68
„ <i>micacé</i>	71	„ <i>lamelleux</i>	68
„ <i>molasse</i>	71	„ <i>niviforme</i>	69
„ <i>noduleux</i>	70	„ <i>saccharoïde</i>	68
„ <i>nummulithique</i>	72	Gypsum	12, 68
„ <i>quartzeux</i>	70	„ argillaceous	68
„ <i>rouge des Alpes</i>	74	„ bituminous	69
„ <i>rouge, vieux</i>	74	„ compact	68
„ <i>siliceux</i>	70	„ fibrous	68
„ <i>talcifère</i>	70	„ granular	68
„ <i>vert</i>	71	„ micaceous	69
„ <i>vert (supérieur et inférieur)</i>	72	„ porphyritic	68
„ <i>Vosgien</i>	74	„ spathic or sparry	68
Griffelschiefer	50		
Grit, micaceous	71		
„ Millstone	74		
„ Quartz	70		
Gritstone	69		
		H.	
		Haarsalz	12
		Haidetorf	83

Hair Salt Page 12	<i>Hematite brune, jaspoïde</i> ... Page 90
Halbgranit 35	„ „ <i>siliceuse</i> 89
Halbopal 93	„ <i>rouge</i> 13, 89
Hällefinta 38	„ „ <i>compacte</i> 89
<i>Hällefinta</i> 38	„ „ <i>fibreuse</i> 89
Hällefinta 38	„ „ <i>foncée, riche en Man-</i>
Harmotom 9	<i>ganèse</i> 89
„ Baryt- 9	„ „ <i>jaspoïde</i> 90
„ Kalk- 9	„ „ <i>micacée schisteuse</i> 89
Harmotome 9	„ „ <i>oolithique</i> 89
„ Baryt 9	„ „ <i>siliceuse</i> 90
„ Lime 9	<i>Hemithrène</i> 25, 58
<i>Harmotome</i> 9	Hemitren 58
Haselgebirge 78	Hemitrene 58
Hastings Sand 73	Heulandit 9
Hausmannit 14	Heulandite 9
<i>Hausmannite</i> 14	<i>Heulandite</i> 9
Hausmannite 14	Hieroglyphenkalk 62
Hauyn 6	Hillconglomerat 75
<i>Häüyne</i> 6	„ -sandstein 72
Hauyne 6	„ -thon 53
Hauynophyr 21	Hippurite Limestone 62
<i>Häüynophyre</i> 21	Hippuritenkalk 62
Hauynophyry 21	Hippuritidea 62
Heavy Spar 11, 95	Hislopit 58
Hematit 13	Hislopite 58
Hematite 13	Hohlspath 9
„ brown 14, 88	Holz, bituminöses 84
„ „ argillaceous 88	„ -glimmerschiefer 42
„ „ compact 88	„ -gneiss 40
„ „ rich in Manganese 88	Hone 49
„ „ siliceous 89	Honestone 15
„ earthy 89	Honigstein 15
„ fibrous 89	Hornblende 6, 7
„ oolitic 89	„ -fels 46
Hematite, red 89	„ -porphyrit 27
„ „ common 89	„ -schiefer 46
„ „ rich in Manganese ... 89	<i>Hornblende</i> 6, 7
„ „ siliceous 90	Hornblende 6, 7
<i>Hématite brune</i> 14, 88	„ Porphyrite 27
„ „ <i>compacte</i> 88	„ „ amygdaloid 27
„ „ <i>concrétionnée fibreuse</i> ... 88	„ „ compact ... 27
„ „ <i>foncée, riche en Manganèse</i> 88	„ „ porphyritic 27

Hornblende, Porphyrite, Wacke	Page 28	Ilvaite	Page 10, 98
„ Porphyry	27	Iolite	11
„ Rock	46	Iron, Disilicate of Protoxide of ...	92
„ Schist	46	Iron-Earth, blue	12
Hornfels	94	Iron-Mould, red	89
Hornstein	5, 94	Iron Ore, brown	14
„ -porphyr	36	„ „ fibrous	88
Hornstone	94	„ „ ochry	88
„ Porphyry	36	„ „ scaly	88
Houille	85	„ chromic	13
„ grasse	86	„ magnetic	13
„ maigre	86	„ pure magnetic	90
„ maréchale	86	„ red	13
„ sèche	86	„ reniform	88
Hyacinth	10	„ titaniferous	14
Hyacinth	10	Iron Pyrites, White	15
Hyalomicté	82	Iron Schist, micaceous	13, 89
Hyalotourmalithe	82	„ spathic	91
Hydrous Pyrites	98	„ „ compact	91
„ Silicate of Zinc	9	„ „ granular	91
Hyperite	22, 24	„ „ very fine-grained	91
Hypérite	24	„ specular	13, 89
Hypersthen	7	Ironstone, black	88
Hypersthène	7	„ carboniferous	91, 92
Hypersthene	7	„ chromic	90
Hypersthenit	24	„ Clay	91
„ Monzon-	24	„ „ brown	88
Hypersthenite	24	„ „ red	89
Hypersthensyenit	24	„ „ yellow	88
		„ garnetiferous	91
		„ magnetic	90
		„ „ chloritic	90
		„ „ compact	90
		„ „ granular	90
		„ „ schistose	90
		„ pyrito-magnetic	91
		Itaberit	90
		Itaberite	90
		Itabérite	90
		Itacolumite	44
		„ common	45
		„ conglomerate	45
		„ flexible	45

I.

Ice	93
Ichthyophthalm	9
Idocras	10
Idocrase	10
Idocrase	10
Ilmenit	14
Ilmenite	14
Ilménite	14
Ilvait	10, 98
Ilvaite	10, 98

<i>Itacolumite</i> Page 44	Kalk, Guttensteiner Page 64
„ <i>commune</i> 45	„ Hallstätter 64
„ <i>flexible</i> 45	„ -Harmotom 9
„ <i>grenue</i> 45	„ Hieroglyphen- 62
Itakolumit 44	„ Hippuriten- 62
	„ Jura- 63
	„ Klippen- 64
	„ -knoten in Kalk oder Mergel ... 59
	„ Kohlen- 65
	„ Korallen- 63
	„ Kreide- 62
	„ Leias- 64
	„ Leitha- 61
	„ Litorinellen- 61
	„ Madreporen- 63
	„ -mergel 55
	„ -Mesotyp 9
	„ Muschel- 64
	„ Nagel- 60
	„ Nerineen- 63
	„ Nummuliten- 61
	„ Orthoceratiten- 65
	„ Ostreen- 62
	„ Pläner- 62
	„ Plassen- 63
	„ Polypen- 63
	„ Rauh- 60
	„ Rudisten- 62
	„ -sandstein 70
	„ Schaum- 60
	„ Spatangen- 62
	„ -spath 13
	„ Steppen- 61
	„ Stink- 58
	„ Stringocephalen- 65
	„ Styolithen- 60
	„ Süßwasser- 61
	„ Terebratula- 65
	„ Trochiten- 64
	„ -tuff 60
	„ Uebergangs- 65
	„ Ur- 66
	„ Vilzer 63
	2 g

J.

<i>Jade glanduleux</i> 26
<i>Jaspe</i> 5, 94
<i>Jasper</i> 5, 94
„ <i>Porcelain</i> 87
<i>Jaspis</i> 5, 94
„ <i>Porzellan-</i> 87
<i>Jurakalk</i> 63
<i>Jura Limestone</i> 63
<i>Jurensis-Mergel</i> 56

K.

<i>Kalait</i> 12
<i>Kali-Glimmer</i> 7
<i>Kalisalpeter</i> 12
<i>Kalk, Ammoniten-</i> 63
„ -aphanit 26
„ <i>Aptychen-</i> 62
„ <i>Astarten-</i> 63
„ <i>Belemniten-</i> 64
„ <i>Berg-</i> 65
„ -breccie 60
„ <i>Cerithien-</i> 61
„ <i>Dachstein-</i> 64
„ -diabas 23
„ <i>Diceras-</i> 63
„ -Diorit 25
„ <i>Eifler</i> 65
„ <i>Encriniten-</i> 64
„ <i>Faser-</i> 60
„ -glimmerschiefer 44
„ <i>Grauwacken-</i> 65
„ <i>Gryphiten-</i> 64

Kalk, Wellen-	Page 64	Kieselmangan	Page 98
„ Zechstein-	65	„ -sandstein	70
„ Zellen-	60	„ -schiefer	94
Kalkstein	57	„ -sinter	93
„ drusiger	60	„ -tuff	93
„ Eisen-	58	„ -zinkerz	9
„ erdiger	59	Killinit	7
„ faseriger	60	<i>Killinite</i>	7
„ Kiesel-	59	Killinite	7
„ Knoten-	59	Kinzigit	82
„ körniger	57	<i>Kinzigite</i>	82
„ Mergel-	58	Kinzigite	82
„ oolithischer	59	Klebschiefer	93
„ poröser	60	Klingstein	33
„ sandiger	59	Klinochlor	8
„ schiefriger	59	Klippenkalk	64
Kännelkohle	85	Knistersalz	95
Kaolin	6, 96	Knochenbreccie	78
„ -sandstein	70	Knotenglimmerschiefer	43
<i>Kaolin</i>	6, 96	„ -kalkstein	59
Kaolin(e)	6, 96	„ -schiefer	47, 48
„ Sandstone	70	Kohle, Blätter-	84
Karpathensandstein	72	„ Braun-, <i>see</i> Braunkohle.	
Karstenit	11, 69	„ Calamiten-	86
Karstenite	11, 69	„ Farnen-	86
Kassiterit	14	„ Glanz-	86
Kelve	51	„ Kännel-	85
Keramohalit	12	„ Moor-	84
Kersantit	29	„ Papier-	84
<i>Kersantite</i>	29	„ Pech-	85
Kersantite	29	„ Russ-	86
Kersanton	29	„ Sagennarien-	86
Kersanton	29	„ Schiefer-	85
<i>Kersanton</i>	29	„ Schwarz-	85
Keuperdolomit	67	„ Sigillarien-	86
„ -mergel	57	„ Stein-	85
„ -sandstein	73	„ „ gemeine	85
Keuper Dolomite	67	„ Streich-	84
„ Marl	57	„ Stück	84
Kibdelophan	14	Kohlenbrandgesteine	87
Kieselguhr	93	„ „ -schlacke	87
Kieselguhr	93	„ -eisenstein	91, 92
„ -kalkstein	59	„ -kalk	65

Kohlensandstein	...	...	Page 74	Lasionite	...	...	Page 12
„ -schiefer	...	...	51	Lasurit	...	...	13
Koprolithenlager	...	...	87	Lasurite	...	...	13
Korallendolomit	...	...	67	Laterite	...	...	80
„ -riffe	...	...	61	Laumonit	...	...	9
Korund	...	...	5, 94	Laumontit	...	...	9
Kramenzelstein	...	...	59	Laumontite	...	...	9
Kramenzelstein	...	...	49, 59	Lava, Leucite	...	...	22
Kreide	...	...	59, 62	Lavezstein	...	...	45
„ glaukonitische	...	...	59	Lead, blue	...	...	14
„ -kalk	...	...	62	Leather, Mountain	...	...	7
„ -mergel	...	...	56	Lehm	...	...	52
„ -schwarze	...	...	48	Leias-Kalk	...	...	64
„ weisse	...	...	59	„ -sandstein	...	...	73
Kreuzstein	...	...	9	„ -schiefer	...	...	56
Kryolith	...	...	14, 96	Leithakalk	...	...	61
Krystall, Berg-	...	...	93	Lepidolite	...	...	8, 97
Kugel-Diorit	...	...	24	Lepidolite	...	...	8, 97
„ -porphyr	...	...	37	Lepidolith	...	...	8, 97
„ -sandstein	...	...	70	Leptinite	...	...	39
Kupferkies	...	...	15	Leptynite	...	...	39
„ -lasur	...	...	13	„ commune	...	...	39
„ -sandstein	...	...	74	„ grenu	...	...	39
„ -schiefer	...	...	57	„ micacé	...	...	39
Kyanite	...	...	10	„ noir	...	...	39
				„ rubané	...	...	39
				„ tourmalinifère	...	...	39
	L.			Leucilite	...	...	21
Labrador	...	...	6	Leucit	...	...	6
„ -Basalt	...	...	21	„ -fels	...	...	21
„ -Porphyr	...	...	26	Leucite	...	...	6
Labradorite	...	...	6	„ amygdaloid	...	...	22
Labradorite	...	...	6	„ compact	...	...	21
„ Basalt	...	...	21	„ Rock	...	...	21
„ Porphyry	...	...	26	„ Lava	...	...	22
Lagenglimmerschiefer	...	...	43	„ porphyritic	...	...	21
„ -gneiss	...	...	41	„ Porphyry	...	...	21
Lagen Gneiss	...	...	41	„ „ vesicular	...	...	22
Lapis Lazuli	...	...	6	Leucitophyre	...	...	21
Lapis Lazuli	...	...	6	„ amygdaloïde	...	...	22
Lapis Lazuli	...	...	6	„ lithoïde	...	...	21
Lasionit	...	...	12	„ porphyroïde	...	...	21
				„ vacuolaire	...	...	22

Leucitophyry	Page 21	Limestone, encrinal or encrinital	Page 64
Leucopyrite	15	" ferruginous	58
Leukopyrit	15	" fibrous	60
Lherzolite	23	" foamy	60
<i>Lherzolite</i>	23	" Freshwater	61
Lherzolith	23	" geodic	60
Lias Limestone	64	" granular	57
" Sandstone	73	" Grauwacke	58
" Slate	56	" Gryphite	64
<i>Liebénéríte</i>	11	" Hippurite	62
Liebnerit	11	" Jura	63
Liebnerite	11	" Leitha	61
Liévrít	10, 98	" Lias	64
Lievrite	10, 98	" Litorinella	61
Lignit	84	" magnesian	65, 66, 67
Lignite	84	" marly	58
<i>Lignite</i>	84	" Mountain	65
" <i>bitumineux</i>	84	" Nerinea	63
" <i>compacte</i>	84	" nodular	59
" <i>piciforme</i>	84	" Nodules of, in Limestone	
" <i>résineux</i>	84	(or Marl Matrix)	59
" <i>schistoïde</i>	84	" nummulitic	61
" <i>terreux</i>	84	" oolitic	59
Lime Harmotome	9	" orbitoidal	61
Limestone	57	" Orthoceras	65
" aboriginal	66	" Ostrea	62
" Ammonite	63	" porous	60
" Aptychia	62	" Scar	65
" arenaceous	59	" siliceous	59
" argillaceous	58	" slaty	59
" Astartin	63	" Spatangus	62
" belemnitic	64	" Steppe	61
" bituminous	58	" Stringocephalus	65
" Breccian	60	" Stylolite	60
" carboniferous	65	" Terebratula	65
" cellular	60	" Transition	65
" Cerithium	61	" Tuff	60
" Chert	59	<i>Limon diluvien</i>	52
" compact	58	Limonit	14, 88
" Diceras	63	<i>Limonite</i>	14, 88
" dolomitic	58	Limonite	14
" earthy	59	Lingula Flags	76
" Eifel	65	Listwenite	45

Lithia Mica	Page 8, 97	<i>Magnétite</i>	Page 13, 90
Lithionglimmer	8, 97	„ <i>compacte</i>	90
Lithionit	8	„ <i>granulaire</i>	90
Lithionite	8	„ <i>schisteuse</i>	90
Lithomarge	97	Majolica	61
„ Ferreo-	97	Malachit	13, 96
<i>Lithomarge</i>	97	<i>Malachite</i>	13, 96
Litorinella Limestone	61	Malachite	13, 96
Litorinellenkalk	61	Malakolite	23
Llandeilo Flags	76	Malakolithfels	23
Loam	52	Malbstein	67
„ diluvial	52	Manganerze	98
Loess	52	„ -kiesel	98
<i>Loess</i>	52	„ -spath	96
Lolingit	15	Manganese, Bisilicate of	98
Lomonite	9	„ Carbonate of	96
Löss	52	„ Ores	98
Lucullan	58	„ Spar	98
<i>Luxiliane</i>	35	<i>Manganèse silicaté</i>	98
Lydian Stone	94	Manganit	14
Lydit	94	Manganite	14
Lydite	94	Margarodit	7
		Margarodite	7
		Marcasite	15, 98
		<i>Marcassite</i>	15, 98
		Markasit	15, 98
		Marl	54
		„ arenaceous	55
		„ argillaceous	55
		„ Belemnite	57
		„ bituminous	55
		„ calcareous	55
		„ Chalk	56
		„ compact	54
		„ dolomitic	55
		„ earthy	55
		„ Folkestone	56
		„ Forest	56
		„ Glauconite	55
		„ gypseous	55
		„ Keuper	57
		„ micaceous	55
		„ Nummismalia	56

M.

Macigno	72
Macigno	72
<i>Macigno</i>	72
Madreporenkalk	63
Magnesia-Glimmer	8
Magnesian Limestone	65, 66, 67
Magnesian-Limestone	65
<i>Magnésie carbonatée</i>	13, 96
Magnesit	13, 96
Magnesite	13, 96
<i>Magnésite</i>	8, 96
Magneteisenerz	13
„ -eisenstein	13, 90
„ -kies	15
Magnetit	13
Magnetic Pyrites	15
Magnetite	13, 90

Marl, Shale	Page 54	<i>Ménilite</i>	Page 93
„ -stone	54	Menilite	93
„ Sub-Apennine	56	Mercurblende	14
<i>Marne</i>	54	Mergel	54
„ à <i>Belemnites</i>	57	„ bituminöser	55
„ à <i>Cyrènes</i>	56	„ Cyrenen-	56
„ <i>arénaçée</i>	55	„ dichter	54
„ <i>argileuse</i>	55	„ Dolomit-	55
„ <i>bitumineuse</i>	55	„ erdiger	55
„ <i>calcaire</i>	55	„ Flammen-	56
„ <i>compacte</i>	54	„ Flecken-	57
„ <i>dolomitique</i>	55	„ Glaukonit-	55
„ <i>du gault</i>	56	„ Glimmer-	55
„ <i>du Keuper</i>	57	„ Gyps-	55
„ <i>glauconieuse</i>	55	„ Jurensis-	56
„ <i>grossière</i>	55	„ Kalk-	55
„ <i>gypseuse</i>	55, 68	„ -kalkstein	58
„ <i>micacée</i>	55	„ Keuper-	57
„ <i>schisteuse</i>	54	„ Kreide-	56
„ <i>subapennine</i>	56	„ Nummismalis-	56
Medium Gneiss	40	„ Pläner	56
Meeressandstein, neuester	71	„ Sand-	55
Meerschäum	8, 96	„ -sandstein	70
Meerschäum	8, 96	„ -schiefer	54
Mehlbatzen	60	„ „ bituminöser	57
Meionite	10	„ Stein-	54
<i>Meionite</i>	10	„ Thon-	55
Mejonit	10	„ verhärteter	54
Melanite	10	Mergelstein	54
Melaphyr	26	Mesitinspath	13
Melaphyre	26	Mesotyp, Kalk-	9
<i>Mélaphyre</i>	26	„ Natron-	9
„ <i>feldspathique</i>	26	Mesotype, Soda	9
„ <i>pyroxénique</i>	26	Miacyten-Thon	54
Melilite	10	Miarolite	34
Melilith	10	<i>Miarolite</i>	34
Melinite	97	Miarolith	34
Mellit	15	Miascit	29
<i>Mellite</i>	15	<i>Miascite</i>	29
Mellite	15	Miascite	29
Menachine Ore	11	<i>Mica à Lithine</i>	97
Menakerz	11	„ <i>magnésien</i>	8
Menilit	93	„ „ <i>potassique</i>	7

Mica, Biaxial	...	...	Page 7	Mica Schist, Talcose	...	...	Page 43
„ -Diorite	...	...	29	„ very fine and even	...	...	42
„ Lithia	...	...	8, 97	„ wavy	...	...	42
„ Magnesia	...	...	8	„ with white & black Mica	...	...	43
Mica Porphyrite	...	...	28	Mica Trap	...	...	28
„ „ amygdaloid	...	...	28	„ Uniaxial	...	...	8
„ „ compact	...	...	28	Micaceous Grit	...	...	71
„ „ porphyritic	...	...	28	„ Iron Gneiss	...	...	42
„ „ Wacke	...	...	28	„ „ Schist	...	...	13, 89
„ Porphyry	...	...	27	„ Sandstone	...	...	71
„ Potash	...	...	7	Micaschiste	...	...	42
Mica Schist	...	...	42	„ à texture froissée	...	...	42
„ argillaceous	...	...	46	„ à texture ondulée	...	...	42
„ „ chloritic	...	...	47	„ à texture plissée	...	...	42
„ „ Clay, common	...	...	46	„ avec chlorite	...	...	43
„ „ containing	...	...		„ avec graphite	...	...	43
„ „ Felspar	...	...	47	„ avec hornblende	...	...	44
„ „ containing	...	...		„ avec talc	...	...	43
„ „ Garnets	...	...	47	„ avec tourmaline	...	...	43
„ „ containing	...	...		„ commun	...	...	42
„ „ Hornblende	...	...	47	„ grenatifère	...	...	43
„ „ crumpled	...	...	46	„ normal	...	...	42
„ „ fibrous	...	...	46	Mico Psammit	...	...	71
„ „ folded	...	...	46	Microcline, Pegmatolite	...	...	6
„ „ rich in Mica	...	...	47	Mikroclin, Pegmatolit	...	...	6
„ „ rich in Quartz	...	...	47	Millstone Grit	...	...	74
„ „ Talcose	...	...	47	Mimesit	...	...	19
„ „ very much	...	...		Mimesite	...	...	19
„ „ contorted	...	...	46	Minerai brun oolithique	...	...	88
„ calcareous	...	...	44	„ de marais	...	...	88
„ chloritic	...	...	43	„ rouge de Zinc	...	...	98
„ common	...	...	42	Minerais de Manganèse	...	...	98
„ contorted	...	...	42	„ en grains	...	...	88
„ fibrous	...	...	42	Mineral Pitch	...	...	87
„ garnetiferous	...	...	43	Minette	...	...	28
„ gneissic	...	...	43	Minette	...	...	28
„ graphitic	...	...	43	Minette	...	...	28
„ hornblendic	...	...	44	Mirabilit	...	...	12
„ knotty	...	...	43	Mirabilite	...	...	12
„ quartzose	...	...	44	Mispickel	...	...	15, 98
„ schorlaceous	...	...	43	Mispickel	...	...	15
„ Sericite	...	...	47	Misspickel	...	...	15
„ stratified	...	...	43	Mittelgneiss	...	...	40

Palagonittuff	Page 78	Peridote	Page 10
<i>Palagonite</i>	7	Perofskite	11
Palagonite	7	Perowskit	11
„ Schist	44	<i>Pérowskite</i>	11
„ Tufa	78	Perlit	32
Papierkohle	84	„ körnigschaliger	32
„ -torf	83	Perlite	32
Partnachschiefer	57	„ argillaceous	32
Paulit	7	„ granular shelly	32
Paulite	7	„ Porphyry	32
Pausilipp Tufa	79	„ pumiceous	32
Pausilippuff	79	„ sphærolitic	32
Pea Ore	88	„ vitreous, with resinous lustre	32
„ -stone	59	<i>Perlite</i>	32
Pearlstone	32	„ <i>globulaire</i>	32
„ Porphyry	32	„ <i>porphyroïde</i>	32
Peat	83	Petroleum	15
„ Moss	83	Petrolisex	37
Pebbles	77	Petrolisex	37
Pechbraunkohle	84	<i>Pétrosilex</i>	36, 37
„ Erd-	87	„ <i>rubané</i>	37
„ -kohle	85	Phacolite	9
„ -matit	34	Phacolith	9
„ -stein	38	<i>Phénacite</i>	10
„ „ -porphyr	38	Phenacite	10
„ -thonstein	38	Phenakit	10
„ -torf	83	Phengit	7
Pegmatite	34	Phengite	7
<i>Pegmatite</i>	34	Phillipsit	9
<i>Pegmatolite Microcline</i>	6	<i>Phillipsite</i>	9
Pegmatolit-Mikroclin	6	Phillipsite	9
Peliom	11	Phlogophite	8
Peliom	11	Phlogopit	8
Pencil	50	Phonolite	33
„ Slate	50	„ amygdaloidal	33
Pennin	8	„ common	33
<i>Pennine</i>	8	„ conglomerate	79
Pennine	8	„ porphyritic	33
Peperin	78	„ spotted	33
<i>Peperino</i>	78	„ trachytic	33
Peperino	78	„ Tufa	79
<i>Péridot</i>	10	„ vesicular	33
Peridot	10	Phonolith	33

Phonolith-Conglomerat ...	Page 79	Plassenkalk	Page 63
„ -tuff	79	Pleonast	13
<i>Phonolithe</i>	33	Pleonaste	13
„ <i>amygdaloïde</i>	33	Plumbago	15, 86
„ <i>commune</i>	33	Plumbago	15
„ <i>porphyroïde</i>	33	<i>Poix</i>	87
„ <i>tachetée</i>	33	Polianit	14
„ <i>vacuolaire</i>	33	Polianite	14
Phosphorit	12, 95	Polirschiefer	93
Phosphorite	12, 95	Polypenkalk	63
<i>Phyllade</i>	46	<i>Ponce</i>	6, 32
„ <i>chloritique</i>	47	Porcelain Earth	96
„ <i>commun</i>	46	„ Jasper	87
„ <i>froissé</i>	46	<i>Porcelanite</i>	87
„ <i>grenatifère</i>	47	Porcelanite	87
„ <i>micacé</i>	47	Porphy, Augit-	26
„ <i>plissé</i>	46	„ Band-	37
„ <i>quartzeux</i>	47	„ drüsiger	37
„ <i>satiné</i>	45	„ Feldstein-	36
„ <i>talqueux</i>	47	„ Flecken-	37
Phyllit	46	„ Granit-	35
Phyllite	46	„ Hornstein-	36
<i>Pierre de Savon</i>	8, 97	„ krystallarmer	37
„ <i>ollaire</i>	45	„ Kugel-	37
Pinit	11	„ Labrador-	26
<i>Pinite</i>	11	„ Mühlstein-	31, 37
Pinite	11	„ Oligoklas-	26
Pinsill	50	„ Pechstein-	38
Pisolite	59	„ poröser	37
Pisolith	59	„ Quarz-	36
Pistacite	10	„ „ Oligoklas-	37
„ Rock	97	„ „ Orthoklas-	37
Pistazit	10	„ „ Sanidin-	37
„ -fels	97	„ Schalen-	37
Pitch, Mineral	87	„ -schiefer	33
Pitchstone	38	„ schiefriger	37
„ argillaceous	38	„ Stockwerks-	82
„ common	38	„ Syenit-	35
„ Porphyry	38	„ Thon-	36
Plänerconglomerat	76	„ Thonstein-	36
„ -kalk	62	„ Trachyt-	31
„ „ -mergel	56	„ -tuff	79
Planglimmerschiefer	42	„ Uralit-	26

<i>Porphyre à Ouralite</i>	Page 26	Porphyry, Granite, without Crystals P.36
" <i>micacé</i>	28	" granitic 35
" <i>molaire</i>	31	" Hornblende 27
" <i>quartzifère</i>	36	" Hornstone 36
" <i>commun</i>	36	" Labradorite 26
" <i>syénitique</i>	27	" Leucite 21
" <i>amygdaloïde</i>	27	" Mica 27
" <i>lithoïde</i>	27	" Millstone 31, 37
" <i>porphyroïde</i>	27	" Obsidian 33
" <i>trachytique</i>	31	" Oligoclase 26
Porphyrit	27	" Pearlstone 32
" Glimmer-	28	" Perlite 32
" Hornblende-	27	" Pitchstone 38
<i>Porphyrite</i>	27	" porous 37
" <i>amygdaloïde</i>	27	" Quartz- 36
" <i>lithoïde</i>	27	" " common 36
" <i>porphyroïde</i>	27	" " Oligoclase 37
Porphyrite	27	" " Orthoclase 37
" amygdaloid	27	" " Sanidine 37
" compact	27	" quartzless 27
" Hornblende	27	" spotted 37
" " amygdaloid	27	" striped 37
" " compact	27	" syenitic 35
" " porphyritic	27	" Trachyte 31
" " Wacke	28	" " argilo- 31
" Mica	28	" " cavernous 31
" " amygdaloid	28	" " common 31
" " porphyritic	28	" " Perlite-like 31
" " Wacke	28	" " pumiceous 31
" porphyritic	27	" " slaty 32
" Wacke	27	" " vesicular 31
Porphyry, Augite	26	" Tuff 79
" Basaltic	20	" Uralite 26
" black	26	" with few Crystals 37
" cavernous	37	Portland-Oolith 62
" Claystone	36	Portland Stone 62
" Diorite	24	Porzellanerde 96
" Felspar	27	Porzellanjaspis 87
" Felstone	36	Posidonomya Slate 56
" Granite, chloritic	36	Posidonomyen-Schiefer 56
" " common	36	<i>Potasse nitraté</i> 12
" " granitic	36	Potstone 45
" " micaceous	36	Pouddingstein 76

Salz, Grün-	Page 95	Sandstein, Meeres-, neuester ...	Page 71
„ Haar-	12	„ Mergel-	70
„ Knister-	95	„ mergeliger	70
„ Spiza-	95	„ Molasse-	71
„ Stein-, <i>see</i> Steinsalz.		„ Muschel-	71
„ Szybiker	95	„ Nummuliten-	72
Sand	76	„ Quader-	72
„ Bagshot	71	„ Quarz-	70
„ Green-	64	„ Rallig-	72
„ Hastings	73	„ rother	74
„ Moorland	73	„ -schiefer	69
„ pumiceous	71	„ schiefriger	69
„ Thanet	71	„ Schilf-	73
„ Vienna	72	„ Spiriferen-	75
Sand	76	„ Talk-	70
„ Bimsstein-... ..	79	„ Taviglianaz-	72
„ Grün-	72	„ Thalassiten-	73
„ -mergel	55	„ Thon-	70
Sandstein	69	„ thoniger	70
„ Alpen-, rother	74	„ Wiener	72
„ Asphalt-	70	Sandstone	69
„ Blätter-	71	„ argillaceous	70
„ Braunkohlen-	71	„ asphaltic	70
„ Bunt-	73	„ Baggy Point	75
„ Deister-	73	„ Berwick	75
„ Eisen-	70	„ calcareous	70
„ eisenschüssiger	70	„ Caradoc	76
„ flötzleerer	74	„ carboniferous	74
„ Fucoiden-	72	„ Cardinia	73
„ Glimmer-	71	„ Carpathian	72
„ Grauwacker	74	„ coarse-grained	69
„ Grün-	71	„ common	69
„ Hils-	72	„ crystallized	69
„ Kalk-	70	„ Cumberland	75
„ kalkiger	70	„ cupriferosus	74
„ Kaolin-	70	„ Dunse	75
„ Karpathen-	72	„ Dura-Den	75
„ Keuper-	73	„ felspathic	76
„ Kiesel-	70	„ ferruginous	70
„ Kohlen-	74	„ Fife	75
„ Kugel-	70	„ fine-grained	69
„ Kupfer-	74	„ fissile	69
„ Leias-	73	„ fucoidal	72

Sandstone, globular	Page 70	Schalstein conglomerate	Page 80
" green	71	" normal	79
" Hereford	75	" of Zelle	80
" Kaolin	70	" porphyritic	80
" Lias	73	Schalstein	79
" Ludlow	75	" von Zelle bei Nossen	80
" Marine, most recent	71	Schaumkalk	60
" marly	70	Schiefer, Alaun-	48
" micaceous	71	" Algäu	57
" Molasse	71	" Amphilogit-	44
" Newent	74	" Aphanit-	25
" New Red	74	" Bacdrillien-	57
" nummulitic	72	" Belemniten-	57
" Old Red	74	" Blatterstein-	79
" Quartz	70	" Blau-	44
" Red, new	74	" Brand-	87
" " of the Alps	74	" Chiaistolith	48
" " old	74	" Chlorit-	45
" Roxburgh	75	" Dach-	49
" Shell	71	" Diabas-	22
" siliceous	70	" Diorit-	24
" talcose	70	" Felsit-	37, 38
" Taviglianaz	72	" Fleck-	48
" variegated	73	" Frucht-	48
" Wenlock	75	" Glimmer-, <i>see</i> Glimmerschiefer.	
Sanidin	6	" -gneiss	40
" Oligoklastrachyt	30	" Grauwacken-	49
" Quarzporphyr	37	" Griffel-	50
" Trachyt	30	" Hornblende-	46
Sanidine	6	" Kiesel-	94
" Oligoclase Trachyte	30	" Kleb-	93
" Quartz Porphyry	37	" Knoten-	48
" Trachyte	30	" -kohle	85
Saponit	8	" Kohlen-	51
Saponite	8	" Kupfer-	57
Saugschiefer	93	" -letten	51
Savon, Pierre de	8	" Lias-	56
Scaglia	62	" Mergel-	54
Schalendorphyr	37	" " bituminöser	57
Schalstein	79, 80	" Ottrelit-	47
" amygdaloid	80	" Paragonit-	44
" Breccia	80	" Partnach-	57
" calcareous	80	" Polir-	93

Schiefer, Porphy-	Page 33	<i>Schiste à Calcéoles</i>	Page 50
„ Posidonomyen-	56	„ à <i>Cypridine</i>	50
„ Quarz-	44	„ à <i>Fucoides</i>	51
„ Sandstein-	69	„ à <i>Graptolites</i>	50
„ Saug-	93	„ <i>alumineux</i>	48
„ Schörl-	82	„ <i>amphibolique</i>	46
„ Sericit-	47	„ à <i>Ottrelite</i>	47
„ Tafel-	49	„ à <i>Posidonies</i>	56
„ Talk-	45	„ à <i>Posidonomyes</i>	52
„ Thon-, <i>see</i> Thonschiefer.		„ <i>ardoisier</i>	49
„ -thon	50	„ <i>arénacé</i>	51
„ „ bituminöser	51	„ <i>argileux</i>	49
„ „ bunter	51	„ „ <i>commun</i>	49
„ „ gebrannter	87	„ à <i>Séricite</i>	84
„ „ glimmerreicher	51	„ <i>bigarré</i>	51
„ „ mergeliger	51	„ <i>bitumineux</i>	48, 51, 87
„ „ sandiger	51	„ <i>calcarifère</i>	51
„ Werfner	52	„ <i>carbonifère</i>	52
„ Wetz-	49	„ <i>chloritique</i>	45
„ Zeichnen-	48	„ <i>de Wenlock</i>	50
Schilfsandstein	73	„ <i>de Wissenbach</i>	50
Schillerfels	81	„ <i>diabasique</i>	22
Schiller-spar	7	„ <i>houiller</i>	48, 49, 51
Schiller-Spath	7	„ <i>liasique</i>	56
Schist, Alum	48	„ <i>luisant</i>	50
„ <i>Amphilogite</i>	44	„ <i>maclifère</i>	48
„ <i>carbonaceous</i>	48	„ <i>Mica-</i> , <i>see</i> <i>Micaschiste</i> .	
„ <i>Chiastolite</i>	48	„ <i>micacé</i>	51
„ <i>Chlorite</i>	45	„ <i>noduleux</i>	47, 84
„ <i>Chloritoid</i>	45	„ <i>novaculaire</i>	49
„ <i>Diabase</i>	22	„ <i>pailleté</i>	49
„ <i>Felsite</i>	37, 38	„ <i>rubané</i>	48
„ <i>Hornblede</i>	46	„ <i>satiné</i>	50
„ <i>Mica</i> , <i>see</i> <i>Mica Schist</i> .		„ <i>siliceux</i>	49
„ <i>micaceous Iron</i>	43, 89	„ <i>Talc-</i> , <i>see</i> <i>Talcschiste</i> .	
„ <i>nodular</i>	47	Schmirgel	94
„ <i>Ottrelite</i>	47	Schörl	10
„ <i>Paragonite</i>	44	„ -fels	82
„ <i>Quartz</i> , <i>see</i> <i>Quartz Schist</i> .		„ -granit	35
„ <i>schorlaceous</i>	82	„ -schiefer	82
„ <i>Sericite</i>	47	Schorl	10
„ <i>spotted</i>	48	Schorl Rock	82
„ <i>Talc</i> , <i>see</i> <i>Talc Schist</i> .		„ <i>compact</i>	83

Schorl Rock, granular	...	Page 82	<i>Serpentine, compacte</i>	...	Page 81
Schorlaceous Granite	...	35	„ <i>porphyroïde</i>	...	81
„ Schist	...	82	„ <i>schisteuse</i>	...	81
Schriftgranit	...	34	„ <i>bréchiforme</i>	...	81
Schwarze Kreide	...	48	Serpulit	...	62
Schwarzerde	...	87	Serpulite	...	62
„ -eisenstein	...	88, 89	<i>Sesqui-carbonate de soude</i>	...	95
„ -kohle	...	85	Shale	...	50
Schwefel	...	15, 99	„ arenaceous	...	51
„ -kies	...	15, 99	„ argillaceous	...	50
Schwerspath	...	11, 95	„ „ burnt	...	87
Scolecite	...	9	„ „ common	...	50
<i>Scolésite</i>	...	9	„ bituminous	...	51, 87
<i>Scories basaltiques</i>	...	20	„ Blatterstein	...	89
Seife, Berg-	...	97	„ calcareous	...	51
Seifenstein	...	8	„ carbonaceous	...	51
Selagit	...	24	„ carboniferous	...	51, 52
<i>Sel ammoniac</i>	...	14	„ fucoidal	...	51
„ <i>gemme</i>	...	14, 94	„ Marl	...	54
„ „ <i>fibreux</i>	...	95	„ micaceous	...	51
„ „ <i>granulaire</i>	...	95	„ Posidonomyad	...	52
„ „ <i>laminaire</i>	...	95	„ variegated	...	51
„ „ <i>spathique</i>	...	95	Siderit	...	13, 91
Selenite	...	68	Siderite	...	13, 91
„ Alabaster	...	12	<i>Sidérose</i>	...	13
Semi-Granite	...	35	„ <i>compacte</i>	...	91
Semi-Opal	...	93	Sigillarienkohle	...	86
<i>Sémi-Opale</i>	...	93	<i>Silex</i>	...	5, 94
<i>Septaria argileux</i>	...	91	<i>Silice pulvérulente</i>	...	93
„ <i>carbonifère</i>	...	92	Sinter, Kiesel-	...	93
Septarienthon	...	53	Sinter, siliceous	...	93
Sericit	...	8	Skapolite	...	10
„ -schiefer	...	47	<i>Skapolit-fels</i>	...	38
<i>Séricite</i>	...	8	Skapolith	...	10
Sericite	...	8	Skolezit	...	9
„ Schist	...	47	Slate, Aphanite	...	25
Serpentin	...	8, 81	„ Calceola	...	50
Serpentine	...	8, 81	„ Clay, <i>see</i> Clay Slate.	...	
„ common compact	...	81	„ Cypris	...	50
„ porphyritic	...	81	„ Diorite	...	24
„ slaty	...	81	„ Glarus	...	50
„ veined	...	81	„ Gneiss	...	40
<i>Serpentine</i>	...	8, 81	„ Graptolite	...	50

Slate, Graywacke	Page 50	Spath, Bitter-	Page 13
„ Lias	56	„ Braun-	13
„ Pencil	50	„ Doppel-	13
„ polishing	93	„ Eisen-	13
„ Posidonomya	56	„ -eisenstein	91
„ roofing	49	„ „ dichter	91
„ Wenlock	50	„ Fluss	14, 94
„ Wissenbach	50	„ Hohl-	9
Smaragd	10	„ Kalk-	13
Smaragd	10	„ Mangan-	96
Smaragdit	7	„ Mesinit-	13
„ -fels	82	„ Rauthen-	13
<i>Smaragdite</i>	7	„ Schiller-	7
Smaragdite	7	„ Schwer-	11, 95
„ Rock	82	„ Talk	13
Smithsonit	13	„ Zink	13
<i>Smithsonite</i>	13	Spathfluor	94
Smithsonite	13	<i>Spath pesant</i>	95
Soap, Rock	47	Speckstein	8, 96
Soap-stone	8	Sperone	21
Soda, Carbonate of	13	Sphalerit	14
„ Mesotype	9	Sphalerite	14
Sodalit	6	Sphärosiderit	91
<i>Sodalite</i>	6	„ kieseliger	92
Sodalite	6	„ schiefriger	91
<i>Soude boratée</i>	12	„ thonreicher	91
„ Carbonate de	13	Sphen	11
„ Sesqui-carbonate de	13	<i>Sphène</i>	11
„ sulfatée	12	Sphene	11
<i>Soufre</i>	15, 99	Spherosiderite	91
Spar, bitter	13	„ argillaceous	91
„ brown	13	„ shaly	91
„ Calc	13	„ siliceous	92
„ Fluor	14, 94	Spinel	13
„ heavy	11, 95	Spinell	13
„ Manganese	98	<i>Spinelle</i>	13
„ Schiller-	7	Spiriferensandstein	75
„ Talc	13	Spizasalz	95
„ Zinc	13	Spodumen	7
Spargelstein	12	Spodumene	7
Spargelstein	12	Spreustein	9
Spatangenkalk	62	Stängelgneiss	40
Spatangus Limestone	62	Stangel Gneiss	40

Terebratula Limestone ...	<i>Page</i> 65	Tile Earth	<i>Page</i> 52
<i>Terre à foulon</i>	97	Timazit	25
„ <i>alumineuse</i>	85	Timazite	25
<i>Terres Vertes</i>	7	Tinkal	12
Teschinit	23	Tinkal	12
Teschinite	23	Tin-ore	14
Thalassiten-Sandstein	73	Tin-stone	14
Thanet Sand	71	Titaneisenerz	14
Tholeite	20	Titaniferous Iron Ore	14
Thomsonit	9	Titanit	11
<i>Thomsonite</i>	9	Titanite	11
Thomsonite	9	Tolfa	79
Thon	52	Tolfa	79
„ Amaltheen-	54	Tonalit	35
„ Braunkohlen-	53	Tonalite	35
„ eisenstein	88, 89, 91	Topanhoacanga	90
„ -glimmerreicher	47	Topas	9
„ „ -schiefer	46	„ -fels	78, 83
„ -gyps	68	Topaz	9
„ Hils-	53	„ Rock	78, 83
„ -mergel	55	<i>Topaze</i>	9
„ Miacyten-	54	<i>Topazogème</i>	78, 83
„ Opalinus-	54	<i>Topazolithe</i>	78, 83
„ Ornaten-	53	Topfstein	45
„ -porphyr	36	Torf	83
„ Salz-	52	„ Bagger-	83
„ -sandstein	70	„ Blätter-	83
„ Schiefer-, <i>see</i> Schieferthon.		„ Filz-	83
„ -schiefer	49	„ Haide-	83
„ „ glimmerreicher	49	„ Moos-	83
„ „ kalkknotiger	49	„ Papier-	83
„ „ sandiger	49	„ Pech-	83
„ „ schalsteinähnlicher	30	„ Rasen-	83
„ Septarien-	53	Tosca	79
„ Turner-	54	Tosca	79
„ Ur-	46	<i>Tourbe</i>	83
„ verhärteter	54	„ <i>compacte</i>	83
Thone, gebrannte	87	„ <i>fibreuse</i>	83
Thonstein	54	„ <i>limoneuse</i>	83
„ Pech-	38	Tourmaline	10
„ -porphyr	36	<i>Tourmaline</i>	10
Thumer-Stein	11	Trachydolerit	31
Thumite	11	<i>Trachy-dolélite</i>	19, 31

Trachy Dolerite	...	...	Page 31	Travertine	...	...	Page 60
Trachyt	...	...	30	Tremolit	...	...	6
„ -Breccie	...	...	78	<i>Trémolite</i>	...	...	6
„ -Conglomerat	...	...	78	Tremolite	...	...	6
„ Oligoklas-	...	...	31	Triphan	...	...	7
„ -porphyr	...	...	31	Triphane	...	...	7
„ Sanidin-	...	...	30	<i>Triphane</i>	...	...	7
„ -tuff	...	...	78	<i>Tripoli</i>	...	...	93
Trachyte	...	...	30	Tripoli	...	...	93
„ Breccia	...	...	78	Trippel	...	...	93
„ compact	...	...	30	Trochitenkalk	...	...	64
„ Conglomerate	...	...	78	Trona	...	...	13, 95
„ decomposed	...	...	30	Trona	...	...	13, 95
„ granular	...	...	30	Tschornosem	...	...	87
„ Oligoclase	...	...	31	<i>Tuf</i>	...	...	78
„ „ Sanidine	...	...	30	„ <i>basaltique</i>	...	...	78
„ Porphyry	...	...	31	„ <i>calcaire</i>	...	...	60
„ „ Argilo-	...	...	31	„ <i>dioritique</i>	...	...	79
„ „ cavernous	...	...	31	„ <i>du Pausilippe</i>	...	...	79
„ „ common	...	...	31	„ <i>felspathique</i>	...	...	79
„ „ Perlite-like	...	...	31	„ <i>phonolithique</i>	...	...	79
„ „ pumiceous	...	...	31	„ <i>ponceux</i>	...	...	79
„ „ slaty	...	...	32	„ <i>porphyrique</i>	...	...	79
„ „ vesicular	...	...	31	„ <i>siliceux</i>	...	...	93
„ porphyrytic	...	...	30	„ <i>trachytique</i>	...	...	78
„ Sanidine	...	...	30	Tufa or Tuff	...	...	78
„ Tufa	...	...	78	„ Basalt	...	...	78
„ vesicular	...	...	30	„ calcareous	...	...	60
Trachyte	...	...	30	„ Felsite	...	...	79
„ <i>décomposé</i>	...	...	30	„ Greenstone	...	...	79
„ <i>granitoïde</i>	...	...	30	„ Limestone	...	...	60
„ <i>lithoïde</i>	...	...	30	„ Palagonite	...	...	78
„ <i>porphyroïde</i>	...	...	30	„ Pausilipp	...	...	79
„ <i>testacé</i>	...	...	32	„ Phonolite	...	...	79
„ <i>vacuolaire</i>	...	...	30	„ Porphyry	...	...	79
Trap, Mica	...	...	28	„ pumiceous	...	...	79
„ Scandinavian	...	...	22	„ siliceous	...	...	93
Trapp micacé	...	...	28	„ Trachyte	...	...	78
Trass	...	...	79	Tuff, Basalt-	...	...	78
Trass	...	...	79	„ -bildungen	...	...	78
Trass	...	...	79	„ Bimsstein-	...	...	79
Travertin	...	...	60	„ Felsit-	...	...	79
Travertin	...	...	60	„ Grünstein-	...	...	79

Whetstone	<i>Page</i> 49	Zellenkalk	<i>Page</i> 60
Wiesenerz	88	Zeolit, Blätter-	9
Wilnit	10	„ Strahl-	9
Wilnite	10	Zeolite, foliated	9
Wöhlerit	11	„ radiated	9
<i>Wöhlerite</i>	11	Zinblend	14
Wohlerite	11	„ Hydrous Silicate of	9
Wood, bituminous	84	„ Ore, red	98
Wulstglimmerschiefer	42	„ Spar	13
		<i>Zinc, mineral rouge de</i>	98
		Zinkblend	14
		„ -erz, Kiesel-	9
		„ „ Roth-	98
		„ -spath	13
		Zinnerz	14
		„ -stein	14
		Zinnober	14, 99
		Zircon	10
		„ Syenite	29
		<i>Zircon</i>	10
		Zirkon	10
		„ -syenit	29
		Zoisit	10
		Zoisite	10
		Zwittergestein	82
		Zwitter Rock	82
Y.			
Yellow Earth	97		
„ Ochre	88		
Yenit	10		
Yenite	10		
Z.			
Zechsteindolomit	68		
„ -kalk	65		
Zechstein Kalk	65		
Zeichenschiefer	48		

Preparing for Publication.

LITHOLOGY;

OR,

ROCKS CLASSIFIED AND DESCRIBED,

WITH THEIR

MINERAL AND CHEMICAL CONSTITUENTS.

TRANSLATED FROM THE GERMAN OF BERNHARD VON COTTA.

BY

PHILIP HENRY LAWRENCE.

LONDON:

LONGMANS, GREEN, READER, AND DYER,
PATERNOSTER ROW.

RETURN EARTH SCIENCES LIBRARY

TO →

642-2997

LOAN PERIOD 1 1 MONTH	2	3
4	5	6

ALL BOOKS MAY BE RECALLED AFTER 7 DAYS
Books needed for class reserve are subject to immediate recall

DUE AS STAMPED BELOW

FORM NO. DD8 UNIVERSITY OF CALIFORNIA, BERKELEY
BERKELEY, CA 94720

714

U.C. BERKELEY LIBRARIES



C034630686

storage



