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MANUAL
OF
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DANA
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MANUAL

OF

MINERALOGY AND PETROGRAPHY;

CONTAINING

The Elements of the Science of Minerals and Rocks,

FOR THE USE OF

THE PRACTICAL MINERALOGIST AND GEOLOGIST AND FOR INSTRUCTION IN SCHOOLS AND COLLEGES.

BY JAMES D. DANA.

SIXTH EDITION.

REVISED THROUGHOUT AND ENLARGED.

ILLUSTRATED BY NUMEROUS WOOD-CUTS.

NEW YORK:

JOHN WILEY & SONS.

1888.

TALKS ON MINERALS;

OR,

THE STUDY OF MINERALOGY MADE INTERESTING.

BY

EDMUND S. F. ARNOLD, M.D.,

OF NEWPORT, R. I.

WILLIAM H. SADLIER,

NEW YORK AND CHICAGO.

THE "STUDENT'S COMPLETE MINERAL COLLECTION."

ACCOMPANIED BY DANA'S MANUAL OF MINERALOGY AND PETROGRAPHY; REVISED AND ENLARGED, 500 PAGES, 1887.

This collection, comprising three hundred species and sub-species, includes most of the salient and many of the rare minerals described in "Talks on Minerals." It contains cubes, octahedrons, dodecahedrons, trapezohedrons, cleavages of rhombic and hexagonal prisms, and crystallizations of the minerals which occur only, or mainly, in crystallized form. Many of the specimens illustrate to perfection the property of cleavage.

In massive specimens, numbers of the objects are duplicated, to show not only the contrasts in colors which the same mineral often possesses, but also other differences between individuals of the same species taken from different localities. The specimens are arranged as represented by the diagrams above. The name of the species is printed at the bottom, the numbers on the left are consecutive, and those on the right indicate the pages of the manual on which the descriptions are given. The specimens are of good size and are quite characteristic of the species.

PRICES:

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The Student's Complete Mineral Collection.

PREPARED BY

GEORGE O. SIMMONS,

No. 352 GATES AVE., BROOKLYN, N. Y.

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		1. ACIDIC DIVISION.	
		I. Sulphur Group.	
1	108	Native Sulphur	Cianciana, Sicily
2	109	Molybdenite	Nevada
		II. Boron Group.	
3	110	Sassolite	Tuscany
		III. Arsenic Group.	
4	110	Native Arsenic	Japan. Prov of Echizen
5	111	Orpiment	Allchar, Macedonia
6	111	Realgar	Felsőbánya, Hungary
7	112	Native Antimony	Prince William, Prov. N.B.
8	112	Stibnite	Japan
9	113	Kermesite	Braunsdorf, Saxony
10	114	Bismuth	Trumbull, Conn
		IV. Carbon Group.	
11	115	Diamond, octahedral	So. Africa
12	118	Graphite	Ticonderoga, N.Y.
		2. BASIC DIVISION	
		I. Gold.	
13	102	Native Gold	Nevada

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		II. Silver.	
14	129	Native Silver	Cobalt, P.O. Canada
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16	131	Stromeyerite	Sinaloa, Mexico
17	133	Stylotite	Nagyag, Transylvania
18	132	Dyscrasite	Lower California
19	131	Pyrargyrite	Reese River Dr., Nevada
20	132	Stephanite	Hawila, Colo
21	134	Cerargyrite	Leadville, Colo
22	134	Embolite	Broken Hill [illegible] W.
		III. Platinum.	
23	135	Iridosmine	Columbia, S. Am
		IV. Mercury.	
24	145	Cinnabar	New Almaden, Cal
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60	180	Perofskite	" " "
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		XII. Uranium.	
69	186	Uraninite	Mitchell Co. N.C.
70	189	Autunite	Bedford N.H.
		XIII. Iron.	
71	189	Meteoric Iron	Atacama, Chile S.A.
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87	198	Limonite pseudomorph	Island of Elba,
88	199	Yellow Ochre	Cape Girardeau, Mo.

		SPECIES.	LOCALITIES.
89	199	Bog Ore	Somerset, Bedford & Fayette Co. Penn.
90	199	Goethite	Gilfer Co. Colo.
91	200	Wolfachite	Q. Diana
92	203	Columbite	Middletown, Ct.
93	203	Yttrotantalite	Leadville, Colo.
94	203	Dufrenite	Rockbridge Co. Va.
95	203	Siderite	Roxbury, Ct.
		XIV. Manganese.	
96	206	Pyrolusite	Tenecapt N.S.
97	207	Braunite	Cummington, Mass
98	207	Manganite	Bridgeville N.S.
99	207	Psilomelane	Montreal, Wis.
100	208	Chalcophanite	Ogdensburg, N.Y.
101	207	Wad	Do. do.
102	208	Lampadite	Arizona
103	208	Triphylite	
104	209	Triplite	Branchville Ct.
105	210	Rhodochrosite	Pennington Park Co. Colo.
		XV. Compounds of Aluminum.	
106	211	Corundum	Macon Co. N.C.
107	211	Sapphire	Corundum Group. Ilymeta Mts.
108	211	Emery.	Chester, Mass
109	211	Ruby	Macon Co. N.C.

		SPECIES.	LOCALITIES.
110	219	Diaspore	Chester Mass.
111	223	Gibbsite	New York State
112	215	Spinel	Orange Co. N.Y.
113	214	Gahnite	Ogdensburg N.J.
114	215	Chrysoberyl	Greenwood Me.
115	216	Cryolite	near Ivigtuk Greenland.
116	217	Abanite	Rombino Italy
117	218	Amblygonite	Peru Maine
118	218	Lazulite	Graves Mountain Ga.
119	219	Variscite	Utah
120	219	Turquois	San Bernardino Co. Cal.
121	220	Wavellite	Montgomery Co. Ark.
		XVI. Compounds of Cerium, Yttrium, etc.	
122	221	Yttrocerite	Amity N.Y.
123	221	Samarskite	Mitchell Co. N.C.
		XVII. Compounds of Magnesium.	
124	223	Brucite	Lancaster Co. Pa.
125	223	Nemalite	Hoboken N.J.
126	224	Hydromagnesite	" "
127	225	Polyhalite	Stassfurt Germany
128	225	Magnesite	Negropontis Greece

		SPECIES.	LOCALITIES.
		XVIII. Compounds of Calcium.	
129	227	Fluorite	Durham Eng.
130	227	"	Westmoreland N.H.
131	229	Sassy Gypsum	Iowa Scotia
132	229	Selenite	Ellsworth Ohio
133	229	Satin Spar	near Nottingham Eng.
134	229	Alabaster	Windsor N.S.
135	229	Rose Gypsum	Hillsboro Prov. N.B.
136	230	Anhydrite	Bleiberg Carinthia
137	231	Ulexite	Esmeralda Co. Nevada
138	231	Pyrenite	Chetco Oregon
139	232	Scheelite	Trumbull Ct.
140	233	Apatite	Eganville Prov. Ont. Canada
141	233	Phosphorite	Kilmore Prov. Canada
142	234	Calcite	Cumberland Eng.
143	234	"	Eganville Canada
144	234	"	Cumberland Eng.
145	234	Dog Tooth Spar	Ft. Scott Kan.
146	235	Iceland Spar	Big Timber Utah
147	236	Calcareous Tufa	Paterson N.J.
148	236	Stalactite	Bisbee Ariz.

		SPECIES	LOCALITIES
149	236	Gillite	Rowan Co. N.C.
150	237	Aragonite	Tombstone Ariz.
151	237	Mexican Onyx	Pueblo Mex.
152	238	Dolomite	Ossining N.Y.
153	239	Pearl Spar	Cumberland Eng.
154	239	Gurhofite	Montville N.J.
		XIX. Compounds of Barium and Strontium.	
155	240	Barite	Cumberland Eng.
156	241	Witherite	Fallowfield "
157	242	Celestite	Kingman Kansas
158	242	Strontianite	Schoharie N.Y.
		XX. Compounds of Sodium.	
159	243	Halite	— — — — — —
		3. SILICA AND SILICATES.	
		1. Silica.	
		QUARTZ.	
160	254	Rock Crystal	— — — — — — —
161	255	Amethyst	Paterson N.J.
162	255	Rose Quartz	Franklin Furnace N.J.
163	255	Palee Topaz	Orizik Ga.
164	255	Smoky Quartz	near Pikes Peak Colo.

		SPECIES	LOCALITIES
165	255	Milky Quartz	near Keene N.H.
166	255	Ferruginous Quartz	Kalamazoo Mich.
167	255	Chalcedony	Tampa Bay Fla.
168	255	Chrysoprase	Silesia
169	256	Cats-Eye	— — — —
170	256	Sard	— — — —
171	256	Agate	Brazil S.A.
172	256	Moss Agate	Trego Co. Kan.
173	256	Onyx	— — — —
174	256	Sardonyx	— — — —
175	257	Jasper	Flint Hill Va.
176	257	Heliotrope	— — — —
177	257	Basanite	— — — —
178	258	Silicified Wood	near Holbrook Ariz.
179	258	Fibrous d'amour	— — — —
		OPAL.	
180	259	Precious Opal	Australia
181	260	Semiopal	near Frazer's Cal.
182	261	Hyalite	San Luis Potosi Mex.
183	261	Wood Opal	Sonoma Co. Cal.
184	261	Geyserite	Yellowstone Park
185	261	Tripolite	Richmond Va.

			SPECIES.	LOCALITIES.
			II. Silicates.	
			A. ARTHOSILICATES.	
			I. Bisilicates.	
180	264		Enstatite	
187	265		Wollastonite	Diana, N.Y.
188	268		Meliolite	Chesterfield
189	268	Pyroxene Group.	Cocolite	Orford
190	267		Jeffersonite	Cockermouth, C.W.
191	268		Rhodonite	Franklin Furnace, N.J.
192	269		Spodumene	Chesterfield, Mass.
193	269		Petalite	Utö, Sweden
194	270		Tremolite	Gouverneur, N.Y.
195	271		Actinolite	Johnson, P.Q.
196	271		Asbestus	Mount Breck, Mass.
197	273		Nephrite	New Zealand.
198	272	Hornblende Group.	Pargasite	Edenville, N.Y.
199	272		Hornblende	near Bilin, Bohemia.
200	273		Anthophyllite	Brookfield, Mass.
201	273		Cronstedtite	Zukunft, Hessen.
202	174	Beryl Group.	Beryl	Easton, S.D.
203	274		Emerald	— — — —
204	274		Aquamarine	Auburn, Me.

			SPECIES.	LOCALITIES.
			II. Unisilicates.	
205	277	Chrysolite Group.	Chrysolite	Hancock, Me.
206	275		Tephroite	Franklin Furnace, N.J.
207	279	Garnet Group.	Garnet	Richmond, Mass.
208	279		Cinnamon Stone	Ceylon, W.I.
209	279		Pyrope	Bohemia, Saxony
210	279		Melanite	Franklin Furnace, N.J.
211	—		Polyadelphite	"
212	280	Ottrelite Group.	Ottrelite	Ottrelite, Belgium
213	281		Zircon	St. Peter's Rock, Ceylon
214	282		Vesuvianite	Orford, Quebec, Canada
215	283	Epidote Group.	Epidote	Chesterfield, Mass.
216	284		Allanite	Hvitterö, Norway
217	285		Zoisite	Bourg d'Oisans, France
218	286		Axinite	Franklin Furnace, N.J.
219	286		Danburite	Russia
220	287		Iolite	Haddam, Ct.
221	289	Mica Group.	Stenopite	Live Oak, Fla.
222	303		Pinnaite Mica	Iron Hill, N.M.
223	289		Lepidolite	Paris, Me.
224	290		Phlogopite	Franklin Furnace, N.J.
225	291		Lepidomelane	Litchfield, Me.
226	291		Biotite	Bridgewater, Pa.

		SPECIES.		LOCALITIES.
		III. Margarophyllite Section.		
267	330	Talc	Talc Group.	near Blount Co. N.C.
268	326	Steatite		Vermont
269	328	Bronchartite		St. Lawrence Co. N.Y.
270	329	Pyrophyllite		Georgia
271	328	Sepiolite (Meerschaum)		Location Doubtful
272	333	Glauconite		Red Bank N.J.
273	339	Serpentine	Serpentine Group.	Montville N.J.
274	330	Amianthus		" " "
275	330	Picrolite		Hartford Co. Md.
276	332	Dewcylite		Near Baltimore Md.
277	332	Genthite		— — — —
278	333	Kaolinite		near Richmond Va.
279	335	Margarodite	Hydrous Group.	Chamberi Conn.
280	335	Damourite		Stoneham Me.
281	335	Cookeite		Hebron Me.
282	336	Chlorophyllite		Unity N.H.
283	338	Vermiculite	Other Group.	Middlebury Mass.
284	339	Jefferisite		Westchester Pa.
285	339	Protovermiculite		Montgat Conn. Lead
286	340	Hipidolite		Near Goshen N.Y.
287	340	Prochlorite		— — — —

		SPECIES.	LOCALITIES.
288	341	Margarite	Chester Mass.
289	343	Seybertite	Orange Co. N.Y.
		4. HYDROCARBON COMPOUNDS.	
		I. Simple Hydrocarbons.	
290	347	Ozocerite	Utah
		II. Oxygenated Hydrocarbons.	
291	348	Amber	Baltic Sea
		III. Asphaltum and Mineral Coals.	
292	349	Asphaltum	Utah
293	349	Albertite	Albert Co. N.B.
294	351	Anthracite	Eastern Pa.
295	351	Anthracite, Iridescent	Lehigh Valley Pa.
296	351	Bituminous Coal	near Richmond Va.
297	351	Cannel Coal	Loveland Ky.
298	351	Lignite	Sheridan Co. Wyo.
299	352	Jet	Whitby Eng.
300	352	Native Coke	near Richmond Va.


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92	201	Columbite	Middletown Ct.
93	202	Vivianite	Leadville. Colo.
94	203	Dufrenite	Rockbridge Co. Va
95	203	Siderite	Roxbury. Ct.
		XIV. Manganese.	
96	206	Pyrolusite	Tenecape. N.S.
97	207	Braunite	Cummington. Mass
98	207	Manganite	Bridgeville N.S.
99	207	Pelicomelane	Montreal. Wis.
100	208	Chalcophanite	Ogdensburg. N.J.
101	207	Wad	Styria
102	208	Lampadite	Arizona
103	208	Triphylite	— — — — — — —
104	209	Triplite	Branchville Ct.
105	210	Rhodochrosite	Burroughs Park. Colo.
		XV. Compounds of Aluminum.	
106	211	Corundum	Clay Co. N.C.
107	211	Sapphire	Montana
108	211	Emery	Chester. Mass.
109	212	Ruby	Clay Co. N.C.

Corundum Group.

		SPECIES.	LOCALITIES.
110	213	Diaspore	Chester Mass.
111	213	Gibbsite	New York State
1 2	213	Spinel	Orange Co. N.Y.
113	214	Gahnite	Ogdensburg. N.J.
114	215	Chrysoberyl	Greenwood. Me.
115	216	Cryolite	near Ivigtut, Greenland
11[illegible]	217	Alunite	Piombino. Italy
117	218	Amblygonite	Pera. Maine
118	218	Lazulite	Graves Mountain Ga.
119	219	Variscite	Utah
120	219	Turquois	San Bernardino Co. Cal.
121	220	Wavellite	Montgomery Co. Ark.
		XVI. Compounds of Cerium, Yttrium, etc.	
122	221	Yttrocerite	Amity. N.Y.
123	221	Samarskite	Mitchell Co. N.C.
		XVII. Compounds of Magnesium.	
124	223	Brucite	Lancaster Co. Pa.
125	223	Nemalite	Hoboken. N.J.
126	224	Hydromagnesite	" "
127	225	Polyhalite	Stassfurt. Germany.
128	226	Magnesite	Negropontis. Greece

		SPECIES.	LOCALITIES.
		XVIII. Compounds of Calcium.	
129	227	Fluorite	Durham. Eng.
130	227	"	Westmoreland. N.H.
131	229	Snowy Gypsum	Nova Scotia
132	229	Selenite	Ellsworth. Ohio.
133	229	Satin Spar	near Nottingham. Eng.
134	229	Alabaster	Tuscany. Italy
135	229	Rose Gypsum	Hillsboro. Prov. N.B.
136	230	Anhydrite	Bleiberg Saxony.
137	231	Ulexite	Esmeralda Co. Nevada
138	231	Priceite	Chetko Oregon
139	232	Scheelite	Trumbull. Ct.
140	232	Apatite	Eganville, Prov. Ont. Canada
141	233	Phosphorite	Villeneuve Prov. Canada
142	234	Calcite	Cumberland. Eng.
143	234	"	Eganville, Canada
144	234	"	Cumberland. Eng.
145	234	Dog Tooth Spar	Gr. Notch. N.J.
146	235	Iceland Spar	Big Timber, Utah
147	236	Calcareous Tufa	Paterson. N.J.
148	236	Stalactite	Bisbee. Ariz.

		SPECIES.	LOCALITIES.
149	236	Oölite	Kansas City, Mo.
150	237	Aragonite	Tombstone, Ariz.
151	237	Mexican Onyx	Pueblo, Mex.
152	238	Dolomite	Cossiny, N.Y.
153	238	Pearl Spar	Cumberland, Eng.
154	238	Gurhofite	Montville, N.J.
		XIX. Compounds of Barium and Strontium.	
155	240	Barite	Cumberland, Eng.
156	241	Witherite	Fallowfield
157	242	Celestite	Kingman, Kansas
158	242	Strontianite	Schoharie, N.Y.
		XX. Compounds of Sodium.	
159	243	Halite	— — — — — —
		3. SILICA AND SILICATES.	
		I. Silica.	
		QUARTZ.	
160	254	Rock Crystal	— — — — — — —
161	255	Amethyst	Paterson, N.J.
162	255	Rose Quartz	Franklin Furnace, N.J.
163	255	False Topaz	Brazil, S.A.
164	255	Smoky Quartz	near Pikes Peak, Colo.

		SPECIES.	LOCALITIES.
165	255	Milky Quartz	near Keene, N.H.
166	255	Ferruginous Quartz	Kalamazoo, Mich.
167	255	Chalcedony	Tampa Bay, Fla.
168	255	Chrysoprase	Silesia
169	256	Carnelian	— — — —
170	256	Sard	— — — —
171	256	Agate	Brazil, S.A.
172	256	Moss Agate	Trego Co. Kan.
173	256	Onyx	— — — —
174	256	Sardonyx	— — — —
175	257	Jasper	Flint Hill, Va.
176	257	Heliotrope	— — — —
177	257	Basanite	— — — —
178	258	Silicified Wood	near Holbrook, Ariz.
179	258	Flèches d'amour	Madagascar.
		OPAL.	
180	259	Precious Opal	Australia
181	260	Semiopal	near Fresno, Cal.
182	261	Hyalite	San Luis Potosi, Mex.
183	261	Wood Opal	Sonoma Co. Cal.
184	261	Geyserite	Yellowstone Park
185	261	Tripolite	Richmond, Va.

		SPECIES.		LOCALITIES.
		II. Silicates.		
		A. ANHYDROUS SILICATES.		
		I. Bisilicates.		
186	264	Eustalite		— — —
187	265	Wollastonite		Diana N.Y.
188	266	Malacolite	*Pyroxene Group.*	Orfordville N.H.
189	266	Coccolite		Oxford "
190	267	Jeffersonite		Ogdensburg N.J.
191	268	Rhodonite		Franklin Furnace N.J.
192	269	Spodumene		Auburn Me.
193	269	Petalite		Uto Sweden
194	270	Tremolite	*Hornblende Group.*	Ossining N.Y.
195	271	Actinolite		Johnson R.I.
196	271	Asbestus		Plum Creek N.C.
197	272	Nephrite		New Zealand.
198	272	Pargasite		Edenville N.Y.
199	272	Hornblende		near Bilin Bohemia
200	273	Anthophyllite		Brooklyn N.Y.
201	273	Crocidolite		Quincy Mass.
202	174	Beryl	*Beryl Group.*	Custer S.D.
203	274	Emerald		— — —
204	274	Aquamarine		Auburn Me.

		SPECIES.		LOCALITIES.
		II. Unisilicates.		
205	277	Chrysolite	*Chrysolite Group.*	Hancock N.H.
206	277	Tephroite		Franklin Furnace N.J.
207	279	Garnet	*Garnet Group*	Redding Conn
208	279	Cinnamon Stone		Warren N.H.
209	279	Pyrope		Zoblitz Saxony
210	279	Melanite		Franklin Furnace N.J.
211	—	Polyadelphite		" " "
212	280	Ouvarovite		Orford Quebec Canada
213	281	Zircon		St Peter's Dome Colo
214	282	Vesuvianite		Laurel Creek Co Mont.
215	283	Epidote	*Epidote Group.*	Untersulzbachthal Tyrol
216	284	Allanite		Texas Penn
217	285	Zoisite		Scandinavia Peninsula
218	286	Axinite		Franklin Furnace N.J.
219	286	Danburite		Russell Mass.
220	287	Iolite		Guilford Ct.
221	288	Muscovite	*Mica Group.*	Woodstock Me.
222	288	Plumose Mica		Grafton N.H.
223	289	Lepidolite		Paris Me.
224	290	Phlogopite		Franklin Furnace N.J.
225	291	Lepidomelane		Litchfield Me
226	291	Biotite		Bedeville Ont. Canada

		SPECIES.		LOCALITIES.
		III. Margarophyllite Section.		
267	324	Talc	*Talc Group.*	near Newitte, N.C.
268	325	Steatite		Vermont.
269	326	Rensselaerite		St. Lawrence Co. N.Y.
270	328	Pyrophyllite		Georgia
271	328	Scpiolite (Meerschaum)		Asiatic Turkey
272	329	Glauconite		Red Bank N.J.
273	329	Serpentine	*Serpentine Group.*	Montville, N.J.
274	330	Amianthus		"
275	330	Picrolite		Harford Co. Md.
276	332	Deweylite		New Rochelle N.Y.
277	332	Genthite		— — — —
278	332	Kaolinite		near Richmond Va.
279	335	Margarodite	*Hydrous Group.*	Branbuie, Conn.
280	335	Damourite		Stoneham, Me.
281	335	Cookeite		Keiser, Mo.
282	336	Chlorophyllite		Unity, N.H.
283	338	Vermiculite	*Chlorite Group.*	Millbury, Mass.
284	339	Jefferisite		Westchester Pa.
285	339	Protovermiculite		Magnet Cove, Ark.
286	340	Ripidolite		Deer Foot, N.H.
287	340	Prochlorite		— — — —

		SPECIES.	LOCALITIES.
288	341	Margarite	Chester Mass.
289	342	Seybertite	Orange Co. N.Y.
		4. HYDROCARBON COMPOUNDS.	
		I. Simple Hydrocarbons.	
290	347	Ozocerite	Galicia
		II. Oxygenated Hydrocarbons.	
291	348	Amber	Baltic Sea
		III. Asphaltum and Mineral Coals.	
292	349	Asphaltum	Utah
293	349	Albertite	Hillsboro, N.B.
294	351	Anthracite	Eastern Pa.
295	351	Anthracite, Iridescent	Lehigh Valley, Pa.
296	351	Bituminous Coal	near Richmond, Va.
297	351	Cannel Coal	Loveland, Ky.
298	351	Lignite	Sheridan Co. Wyo.
299	352	Jet	Whitby, Eng.
300	352	Native Coke	near Richmond, Va.

Species	Manual	SPECIES.		LOCALITIES.
227	292	Wernerite		Macomb. N.Y.
228	293	Nephelite		Monte Somma. Vesuvius. Italy.
229	293	Elæolite		Magnet Cove. Ark.
230	294	Cancrinite		Litchfield. Me.
231	294	Sodalite		" "
232	295	Lapis Lazuli		Chili. S.A.
233	295	Leucite		Monte Somma. Vesuvius
234	298	Anorthite	*Feldspar Group.*	Miakejima. Japan
235	298	Labradorite		Coast of Labrador.
236	299	Oligoclase		Kamad
237	299	Sunstone		near Perth. Canada
238	299	Albite		Northern New York
239	300	Cleavelandite		Auburn. Me.
240	300	Microcline		near Pikes Peak. Colo.
241	300	Orthoclase		Summit Co. Colo.
		III. Subsilicates.		
242	303	Chondrodite		Tilly Foster. N.Y.
243	304	Tourmaline	*Tourmaline Group.*	Paris. Me. Alt. Mica.
244	305	Rubellite		Auburn. Me.
245	305	Indicolite		Auburn Me
246	306	Andalusite		Standish. Me
247	307	Chiastolite		California

Species	Manual	SPECIES.	LOCALITIES.
248	307	Fibrolite	Willimantic. Ct
249	308	Cyanite	Dekalb Co. Ga.
250	309	Topaz	Millard Co. Utah
251	311	Datolite	Paterson N.J.
252	312	Tremolite	Eganville. Ont. Canada
253	313	Staurolite	Windham. Me.
254	314	Scheerlomite	Magnet Cove. Ark.
		B. HYDROUS SILICATES.	
		I. General Section.	
255	315	Radiated Pectolite	Gr. Notch. N.J.
256	315	~~Fibrous~~ Pectolite	Lake Co. Cal.
257	316	Apophyllite	Paterson N.J.
258	317	Prehnite	Gr. Notch. N.J.
259	317	Chlorastrolite	L. Superior
		II. Zeolite Section.	
260	320	Thomsonite	Grand Marais. Mich.
261	321	Natrolite	Paterson. N.J.
262	322	Analcite	" "
263	322	Acadialite	" "
264	323	Harmotome	Ossining. N.Y.
265	324	Stilbite	Upper Montclair. N.J.
266	325	Heulandite	Paterson N.J.

37. With Malachite
47. Shows twinning
52. Willemite, green; Zincite, red
54 On calcite.
58 In quartz crystal.
51 In small octahedrons.
67 Green, on Chromite.

69. Uraninite is black. The yellow mineral is Gummite
an alteration from Uraninite
70 In yellow scales on the surface
92 The Columbite shows as a small crystal
at one corner of the crystal of Mica.
97 The black coating is Braunite. It is an alteration
from the Rhodonite, red

112. a black octahedron.
113 a Zinc Spinel
114 The edge of the crystal lies between the two black dots.
122. a purple incrustation on mica.
126 On Serpentine.
130 Shows an octahedral cleavage.
46 Shows double refraction. Place it upon — or o.

150 From the 1700 foot level of the "Lucky Cuss" Mine
154 Salt.
185 Infusorial earth.

197. Or Jade.
206. The dove-colored is Dioptase; the red, Zincite; the black, Franklinite
207. A trapezohedron.

228. The black is Biotite.
235. Shows beautiful internal reflections.
237. When held at the proper angle shows sun like reflections.
250. In Rhyolite
258. Spherical associated with Quartz.
264 The only known American locality.
266 On Quartz

Diamond – South Africa

Sylvanite – Nagyag

Dyscrasite – California

Pyrargyrite – Nevada

Stephanite – Colorado

Cerargyrite – Leadville

Platinum – Colombia

Argentite – Mexico

Chalcocite – Montana

Emerald

Aquamarine – Auburn, ME

Chondrodite – Tilly Foste