



H L Preston

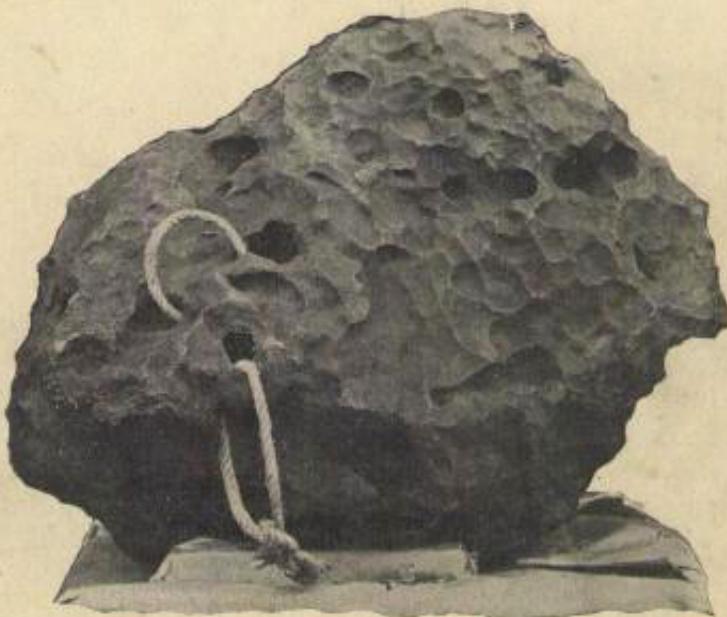
Collection May 8-1901

In and into added since June 1st 1901  
**THE**  
**WARD=COONLEY**

COLLECTION

OF

**METEORITES.**



CAÑON DIABLO METEORITE.

CHICAGO.

1901.

## PREFACE.

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Meteorites, as Humboldt pointed out, are the only medium through which the inhabitants of the earth are brought into interplanetary and also into interstellar space. They have, therefore, a fascination for the ordinary man's mind which nothing terrestrial can have.

A survey of the heavens, with the naked eye or by the aid of a telescope, fills our minds with wonder and awe, mingled with intense curiosity as to what the brilliant celestial bodies may possibly mean. But when the meteoric globe sails across the sky and falls as a solid mass, our awe is none the less, but our curiosity is largely satisfied; the meteorite has told us one of the tales of other worlds than ours. The writer has for more than a half century felt the fascination of this subject. And for more than twenty years past he has given much time to collecting and studying these interesting cosmic bodies in every part of the world where he has travelled, and where they have been found. The collection enumerated on the following pages is the result of these activities. It represents 511 distinct "falls" and "finds," about five-sixths of all the meteorites known to science, and which are stored mainly in the great museums of the world, as well as in the cabinets of private amateur collectors. It contains specimens of the oldest falls those of the fourteenth to eighteenth centuries—which were observed and collected at those early periods, as well as those which, at the commencement of the nineteenth century, first challenged and secured from European savants acceptance of their extra-terrestrial character. Among the former are prominent Elbogen and Ensisheim; among the latter the Pallas Iron and l'Aigle.

The collection contains more than the usual quantity of notable specimens. Among those represented by particularly large and choice specimens are Ballinoo and Roebourne (Australia), Costilla Peak, Luis Lopez and Oscuro Mountains (New Mexico), St. Genevieve and Central (Missouri), Oakley and Brenham (Kansas), MacKinney (Texas), and Veramin (Persia). The four masses of Cañon Diablo (diamondiferous) weigh together a full ton. The rare, curved octahedral structure is well brought out in sections of the Toluca and Glorieta Irons; "Slickenside" surfaces, which occur prominently in some few *Aerolites*, show well in the Stall-dalen, Manbhoom and Lixna specimens. The Puquios Iron (first brought by us from Chili), alone among meteorites shows a clear *faulting* in some of the Kamacite bands. In the Brenham (Haviland) section, one end of a slice represents a typical Siderite, while

the other end shows (by a like considerable surface) a typical Siderolite. Large, prominent and abundant nodules of troilite are shown in the great sections of Toluca, Cañon Diablo and Bella Roca; large plates of Schreibersite in La Primitiva and Tombigbee River. The carbonaceous meteorites are represented by all which are known—Cold Bokkeveldt, Alais, Orgueil, Nagaya and Mighei. The metallic veins, found penetrating some few *Ærolites*, are well shown in the Schönenberg and Farmington masses. We have, also, a small piece of the only meteorite of geological (Quaternary) age—the Villa Lujan, brought by us from Buenos Ayres in 1889.

Finally we have specimens of two pre-historic meteorites. One of these is the Anderson from the altar-mound of the Little Miami Valley, Ohio. The other is Casa Grande from a mummy cave of Chihuahua, Northern Mexico.

In frequent cases, the considerable number of specimens of the same fall makes it possible to show varieties of extreme form and of inner structure. In nearly every case we are able to show both the outside crust of the specimen and, by fracture or artificial section, its inner features.

The authenticity of the specimens has been carefully studied. All doubtful falls have been sternly rejected. And we have refused to increase our list by giving duplicate names of what are undoubtedly of the same fall, as among Tolucas, Coahuilas, Mocs, etc. Our sources of supply have been in part the large museums of the world, everyone of which we have visited in bringing together this collection.

We have adopted the general divisions of the collection of the British Museum—Siderites, Siderolites and *Ærolites*. Under these divisions our arrangement, for ready convenience, has been alphabetical. We will only say in defining the fullness of the collection that, of the 61 classes or divisions of meteorites adopted by Brezina, we have all but 1; while, of the 62 types of Meunier, we have all but 2. Few meteorite collections in the world (we believe only three) have an equal number of kinds, with, at the same time, an average so large ( $2\frac{1}{2}$  lbs.) in the weight of their individual specimens. (See page 21.)

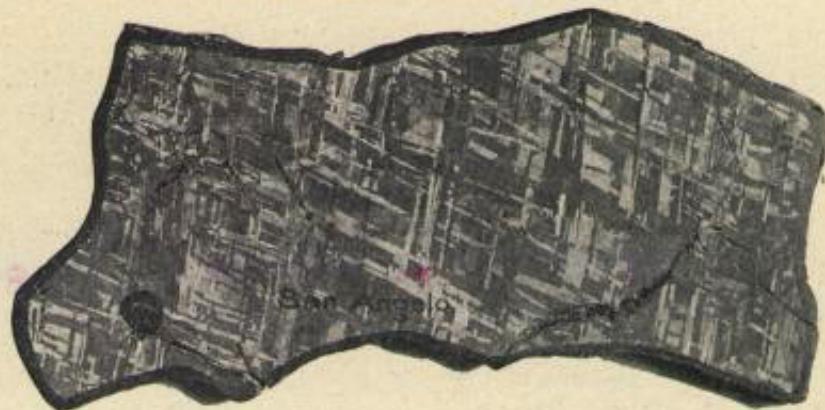
Each specimen is separately mounted on a choice mahogany pedestal, bearing a printed celluloid label. The entire collection fills six cases 12 feet long by 4 feet wide, with plate-glass sides through which, on their pedestals and shelves, the individual specimens may be seen and studied.

HENRY A. WARD.

620 Division Street, Chicago, Ill.

April 10, 1901.

# SIDERITES.



SECTION OF SAN ANGELO METEORITE, ONE-THIRD NATURAL SIZE.

No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
1	1887	Abert Iron.	49
2	1780	Adargas, Chihuahua, Mexico.	70
3	1898	Alt-Biela, Moravia, Austria.	19
4	1890	Apoala, Nochitlan, Oaxaca, Mexico.	145
5	1897	Apolonia, Tlascala, Mexico.	144
6	1894	Arlington, Sibley County, Minn.	94
7	1867	Auburn, Macon County, Alabama.	17
8	1890	Augustinowka, Ekaterinoslaw, Russia.	1,077
9	1842	Babb's Mills, Green County, Tenn.	89
10	1839	Baird's Farm, Buncombe County, N. C.	5
11	1893	Ballinoo, West Australia.	11,049
12	1855	Barranca Blanca, San Francisco Pass, Chili.	13
13	1897	Beaconsfield, Victoria, Australia.	815
14	1866	Bear Creek, Denver County, Colorado.	62
15	1888	Bella Roca, Durango, Mexico.	754
16	1784	Bendegó, Bahia, Brazil.	1,678
17	1880	Bingera, New South Wales.	1
18	1888	Bischtübe, Nikolaev, Turgai, Russia.	1,932
19	1802	Bitburg (Albacher Mühle), Rhenish Prus.	963
20	1835?	Black Mountain, Buncombe Co., N. C.	7

No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
21	1890	Blue Tier, Tasmania, Australia.	9
22	1829	Bohumilitz, Prachin, Bohemia.	1,708
23	*1847	Braunau, Hauptmannsdorf, Bohemia.	329
24	1890	Bridgewater, Burke County, N. C.	83
25	1819	Burlington, Otsego County, N. Y.	123
26	1874	Butler, Bates County, Missouri.	82
		Dutch iron Coshumba, Mex.	56 680
27	1818	Cambria (Lockport), Niagara Co., N. Y.	89
28	1783	Campo del Cielo, Tucuman, Argentine Rep.	793
29	1845	Caney Fork, De Kalb County, Tenn.	14
30	1891	Cañon Diablo, Arizona.	1,108 189
31	1894	Canton, Cherokee County, Georgia.	310
32	1869	Capeer, Rio Senguerr, Patagonia.	9
33	1793	Cape of Good Hope, Cape Colony, S. Africa.	56
34	1888	Carlton, Hamilton County, Texas.	5,992
35	1844	Carthage, Smith County, Tenn.	447
36	1877	Casey County, Kentucky.	22
37	Prehistoric	Casa Grande, Chihuahua, Mexico.	3360
38	1855	Central Missouri.	2,535
39	1804	Charcas, San Luis Potosi, Mexico.	3,200
40	†1835	Charlotte, Dickson County, Tenn.	5
41	1847	Chesterville, Chester Co., S. Carolina.	72
42	1781	Chilcat, Chilcat Inlet, Alaska.	62
43	1873	Chulafinnee, Cleberne County, Alabama.	88
44	1852	Chupaderos, Chihuahua, Mexico.	10,832
45	1860	Cleveland, Bradley County, Tennessee.	76
	1837	{ Coahuila, Desert of Mapimi, Mexico.	3,429
46	1827	" (Sancha Estate), Mexico.	77
	1827	" (Santa Rosa), Mexico.	752
47	1880	Colfax, Rutherford County, N. C.	42
48	1860	Coopertown, Robertson County, Tenn.	51
49	1837	Cosby's Creek, Cocke County, Tenn.	71
	1845	" " Sevier County, Tenn.	2,977

\* Fell July 14th.

† Fell August 1st.

No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
50	1881	Costilla Peak, Cimarron Range, N. M.	8,544
51	1888	Cowra, New South Wales.	25
52	1853	Cranberry Plains, Poplar Hill, Va.	5
53	1854	Cranbourne, Melbourne, Victoria, Aus.	2,638
54	1808	Cross Timbers, Red River, Texas.	32
55	1863	Dakota.	305
56	1877	Dalton, Whitfield County, Georgia.	167
57	1846 1866	Deep Springs, Rockingham County, N. C.	47
58	1856	<del>Denton County</del> , near Austin, Texas.	17
59	1780 1885	{ Descubridora, San Luis Potosi, Mex. " (Catorce), San Luis Potosi, Mex.	33,340 14
60	1873	Duel Hill, Madison County, N. C.	23
61	1811	Elbogen, Bohemia.	32
62	1895	El Capitan, New Mexico.	2,099
63	1889	El Tule, Chihuahua, Mexico.	9
64	1854	Emmitsburg, Frederick County, Md.	21
65		Espirito Santo, Michoacan, Mexico.	54
66	1895	Forsyth County, Georgia.	550
67	1882	Fort Duncan, Maverick County, Texas.	347
68	1856	Fort St. Pierre, Nebraska.	64
69	1866	Frankfort, Franklin County, Kentucky.	5
70	1884	Glorieta Mountain, Santa Fe Co., N. M.	3,001
71	1883	Grand Rapids, Walker Township, Mich.	3,941
72	1880	Greenbrier County, West Virginia.	18
73	1838 1860	{ Great Fish River, West South Africa. Bethany, Great Namaqualand, S. Africa.	11 2
74	1884	Hammond, St. Croix Co., Wisconsin.	98
75	1895	Hayden Creek, Lemhi County, Idaho.	42
76	1889	Henry County, Virginia.	—

## WARD-COONLEY COLLECTION OF METEORITES.

No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
77	1882	<b>Hex River</b> , Cape Colony, S. Africa.	248
78	1887	<b>Holland's Store</b> , Chattooga Co., Georgia.	248
79	*1751	<b>Hraschina</b> , Agram, Croatia, Austria.	9
80	1897	<b>Illinois Gulch</b> , Deer Lodge Co., Montana.	830
81	1900	<b>Indio Rico</b> , Buenos Ayres, Argentine Rep.	11
82	1871	<b>Iquique</b> , Province Tarapaca, Peru, S. A.	17
83	1898	<b>Iredell</b> , Bosque County, Texas.	■■■
84	1880	<b>Ivanpah</b> , San Bernardino Co., California.	221
85	1846	<b>Jackson County</b> , Tennessee.	117
86	1885	<b>Jamestown</b> , Stutsman County, N. Dakota.	583
87	1882	<b>Jenny's Creek</b> , Wayne Co., W. Virginia.	7
88	1854	<b>Jewell Hill</b> , Madison Co., N. Carolina.	15+20=39
89	1884 1889	<b>Joe Wright Mountain</b> , Arkansas. <i>Joe Iron, Atacama Chill</i>	175 11
90	1866	<b>Juncal</b> , Atacama, Chili.	50
91	1887	<b>Kendall County</b> , San Antonio, Texas.	286
92	1889	<b>Kenton County</b> , Kentucky.	17,930
93	1862	<b>Kokomo</b> , Howard County, Indiana.	63
94	1887	<b>Kokstad</b> , Griqualand, East South Africa.	270
95	1828	<b>La Caille</b> , Alpes Maritimes, France.	42
96	1860	<b>La Grange</b> , Oldham County, Kentucky.	33
97	1888	<b>La Primitiva</b> , Tarapaca, Chili.	30
98	1857	<b>Laurens Court House</b> , S. Carolina.	41
99	1814	<b>Lénárto</b> , Sáros, Hungary.	—
100	1880	<b>Lexington County</b> , S. Carolina.	108
101	1879	<b>Lick Creek</b> , Davidson County, N. C.	15
102	1834	<b>Lime Creek</b> , Claiborne, Clark Co., Ala.	109
103	1882	<b>Linnville Mountain</b> , Burke County, N. C.	28
104	1853	<b>Lion River</b> , Great Namaqualand, S. Africa.	46
105	1857	<b>Locust Grove</b> , Henry County, Georgia.	227

\* Fell May 26th.

No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
106	1868	Losttown, Cherokee County, Georgia.	6
107	1855	Lucky Hill, St. Elizabeth, Jamaica.	45
108	1896	Luis Lopez, Socorro Co., New Mexico.	3,124
109	1854	Madoc, Hastings Co., Ontario, Canada.	24
110	1840	Magura, Szlanicza, Hungary.	1,366
111	1876	Mantos Blancos, Atacama, Chili.	2
112	1860	Marshall County, Kentucky.	17
113	1898	Mart, McLennan County, Texas.	1,163
114	1878	Matatiela, Griqualand, East S. Africa.	1
115	*1885	Mazapil, Zacatecas, Mexico.	1
116	1884	Merceditas, Chañaral, Atacama, Chili.	729
117	1804	Misteca, Oaxaca, Mexico.	16,612
118	1899	Moctezuma, Sonora, Mexico.	364
119	1893	Mooranoppin, West Australia.	74
120	1889	Morelos, Rancho de los Amates, Mexico.	3
121	1892	Morradal, Grjotlien, Norway.	5
122	1887	Mount Joy, Adams County, Pa.	15,000
123	1894	Mount Ouray, Chaffee County, Colorado.	120
124	1892	Mount Sterling, West Australia.	952
125	1897	Mungindi, Queensland, Australia.	1,387
126	1847	Murfreesboro, Rutherford County, Tenn.	25
127	1899	Murphy, Cherokee County, N. C.	567
128	1890	Nagy-Vazsony, Veszprim, Hungary.	36
129	1854	Narraburra, Temora, New South Wales.	10
130	†1870	Nedagolla, Mirangi, Madras, India.	5
131	1863	Nejd, Central Arabia.	61,515
132	1860	Nelson County, Kentucky.	435
133	1872	Nenntmansdorf, Pirna, Saxony.	22
134	1879	Niagara, Forks County, N. Dakota.	26
135	1895	Nocoleche, Wanaaring, N. S. W.	1,125

\* Fell November 27th.

† Fell January 23d.

No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
136	1863	Obernkirchen, Buckeberg, Germany.	60
137	1856	Orange River, South Africa.	74
138	1893	Oroville, Butte County, California.	579
139	1895	Oscuro Mountains, Socorro Co., N. Mex.	640
140	1850	Pittsburg, Miller's Run, Alleghany Co., Pa.	9
141	1893	Plymouth, Marshall County, Indiana.	1,090
142	1797	Prambanan, Surakarta, Java.	16
143	1885	Puquios, Chili, South America.	61
144	1839	Putnam County, Georgia.	23
145	1880	Queensland, Australia.	72
146	*1898	Quesa, Enguera, Valencia, Spain.	1
<b>Rasgata Switz.</b>			
147	1871	Ranchito, Bacubirito, Sinaloa, Mexico.	98
148	1804	Rancho de la Pila, Durango, Mexico.	2,042
149	1810	Rasgata, New Granada, South America.	96
	1810	(Tocavita), New Granada, S. A.	16
150	1892	Roebourne, N. W. Australia.	34,548
151	1897	Rosario, Honduras, Central America.	461
152	†1872	Rowton, near Wellington, Shropshire, Eng.	13
153	1844	Ruff's Mountain, Lexington County, S. C.	118
154	1863	Russel Gulch, Gilpin County, Colorado.	277
155	1876	Sacramento Mountains, New Mexico.	6,115
156	1863	Saint Francois County, Missouri.	753
157	1850	Salt River, Kentucky.	11
158	1897	San Angelo, Tom Green County, Texas.	4,516
159	1868	San Francisco del Mesquital, Mexico.	12
160	1600	San Gregorio, El Morito, Mexico.	14
161	1875	Santa Catarina, Brazil, South America.	3,337

\* Fell August 1st.

† Fell April 20th.

No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
162	1883	São Julião de Moreira, Portugal.	968
163	1854	Sarepta, Saratov, Russia.	36
164	1867	Scottsville, Allen County, Kentucky.	1,153
165	1850	Schwetz, Prussia.	5
166	1847	See-Lasgen, Brandenburg, Prussia.	405
167	1850	Seneca Falls, Seneca County, N. Y.	104
168	1869-70	<del>Serrania de Juras, Macanao, Chile</del> Shingle Springs, El Dorado Co., Cal.	50
169	1887	Silver Crown, Laramie County, Wyoming.	75
170	1716	Siratik, Senegal, West Africa.	17
171	1839-40	Smithland, Livingston County, Kentucky.	49
172	1863	Smith's Mountain, Rockingham Co., N. C.	40
173	1892	<del>Southern U.S.A.</del> Smithville, De Kalb Co., Tennessee.	4,042
174	1857	Springbok River, Gt. Namaqualand, S. Af.	10
175	1873	Ssyromolotovo, Jenisseisk, Asiatic Russia.	3 <del>+ 4 = 7</del>
176	1869	Staunton, Augusta County, Virginia.	2,364
177	1890	Summit, Blount County, Alabama.	14 <del>+ 16 = 30</del>
178	1888	St. Genevieve County, Missouri.	106,056
179	1899	Surprise Springs, San Bernardino Co., Cal.	<del>110</del> <b>1010</b>
180	1853	Tazewell, Claiborne County, Tenn.	279
181	1886	Thunda, Queensland, Australia.	1,181
182	1895	Thurlow, Ontario, Canada.	209
183	1784	Toluca, Mexico.	64,388 <del>+ 487</del>
184	1878	Tombigbee River, Alabama.	530
185	1885	Tonganoxie, Leavenworth Co., Kansas.	709
186	1891	Toubil, d' Jenisseisk, Russia.	330
187	1858	Trenton, Washington County, Wisconsin.	154
188	1851	Tucson (Signet), Arizona.	416
189	1853	Union County, Georgia.	67
190	1871	Victoria, Saskatchewan River, B. A.	253
191	1892	Victoria West, Cape Colony, S. Africa.	17

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No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
192	1887	Waldron Ridge, Claiborne Co., Tennessee.	430
193	1832	Walker County, Alabama.	40
194	1888	Welland, Ontario, Canada.	162
195	1876	Werchne Dnieprowsk, Ekaterinoslaw, Rus.	99
196	1854	Werchne Udinsk, Niro River, Russia.	295
197	1836	Wichita County, Brazos River, Texas.	902
198	1858	Wooster, Wayne County, Ohio.	5 <i>+ 10</i>
199	1875	Yardea Station, Gawler Range, S. Aus.	73
200	1884	Youndegin, Penkarring Rock, W. Aus.	569
201	1792	Zacatecas, Mexico.	1,340

*missing*  
#60 + 82

# SIDEROLITES.



VERAMIN (KARAND), TEHERAN, PERSIA.

No.	Date of Find or Description,	NAME AND LOCALITY.	Weight in grammes.
202	Prehistoric	<i>Ramire</i> Anderson, Little Miami Valley, Ohio.	2
203	*1842	Barea, Logrono, Spain.	5
204	1810	Brahin, Rokicky, Minsk, Russia.	42
205	1861	Breitenbach, Erzgebirge, Bohemia.	17
206	1890	Brenham, Kiowa County, Kansas. <i>Coldenwa</i>	14,226
207	1863	Copiao, Sierra de Deesa, Chili.	195
208	1887	Crab Orchard, Rockwood, Tenn.	2,528 + 462574
209	1888	Doña Inez, Atacama, Chili.	639
210	1880	Eagle Station, Carroll County, Kentucky.	275
211	†1879	Estherville, Emmet County, Iowa.	1,406 + 6038

\* Fell July 14th.

† Fell May 10th.

No.	Date of Find or Description.	NAME AND LOCALITY.	Weight in grammes.
212	1856	Hainholz, Minden, Westphalia.	1,049
213	1887	Hamblen County, Morristown, Tenn.	3,951
214	1822	Imilac, Atacama, Bolivia.	387
215	1888	Llano del Inca, Atacama, Chili.	93
216	*1868	Lodran, Mooltan, Punjaub, India.	2
217	1857	Macquaire River, New South Wales.	58
218	1749	Medwedewa (Pallas Iron), Russia.	537
219	1857	Mincy, Taney County, Missouri.	2,152
220	1885	Pavlodar, Semipalatinsk, Asiatic Russia.	9
221	1833	Rittersgrün, Erzgebirge, Saxony.	149
222	1846	Tula, Netschaevo, Russia.	15
223	1861	Vaca Muerta, Atacama, Chili.	283
224	†1880	Veramin (Karand), Teheran, Persia.	1,037

\* Fell October 1st.

† Fell February.

# AEROLITES.



HESSLE, NEAR UPSALA, SWEDEN.

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes.
225	1814 Sept. 5	Agen, Lot-et-Garonne, France.	40
226	1822 Aug. 7	Agra (Kadonah), India.	13
227	1838 Apr. 18	Akburpur, Saharanpur, India.	7
228	1806 Mch. 15	Alais, Gard, France.	5
229	1766 July	Albareto, Modena, Italy.	3
230	1835 Aug. 4	Aldsworth, Gloucestershire, England.	4
231	1873 about	Aleppo, Syria.	19
232	1860 Feb. 2	Alessandria, Piedmont, Italy.	70
233	1883 Feb. 16	Alfianello, Brescia, Italy.	5,039
234	1899 July 10	Allegan, Allegan County, Mich.	405 <i>+296 = 701</i>
235	1895 May 27	Ambapur Nagla, N. W. Prov., India.	40
236	1822 June 3	Angers, Maine-et-Loire, France.	<i>-</i> 24
237	1879 Jan.	Angra dos Reis, Rio de Janeiro, Bra.	6
238	1803 Oct. 8	Apt (Saurette), Vaucluse, France.	34
239	1805 Nov.	Asco, Corsica.	5
240	1886 May 24	Assisi, Perugia, Italy.	1
241	1896 Feb. 26	Atemajac, Jalisco, Mexico.	32

## WARD-COONLEY COLLECTION OF METEORITES.

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes.
242	1836 Sept. 14	Aubres, Nyons, Drôme, France.	15
243	1842 June 4	Aumières, Lozère, France.	19
244	1858 Dec. 9	Ausson, Haute Garonne, France.	183
245	1856 June	Avilez, Durango, Mexico.	6
246	1814 Feb. 15	Bachmut, Ekaterinoslaw, Russia.	26
247	1871 Dec. 10	Bandong, Java.	17
248	1790 July 24	Barbotan, Landes, France.	90
249	1852 Found	Barratta, Deniliquin, N. S. Wales.	8
250	1892 Aug. 29	Bath, South Dakota.	1,744
251	1893 May 26	Beaver Creek, British Columbia.	403
252	1798 Dec. 19	Benares, Krakhut, India.	8
253	1811 July 8	Berlanguillas, near Burgos, Spain.	9 + 5 = 14
254	1859 Aug. 11	Bethlehem, near Albany, N. Y.	1
255	1859 May	Beuste, Basses-Pyrénées, France.	2
256	1843 Mch. 25	Bishopville, Sumter County, S. C.	58
257	1887 Jan. 1	Bielokrynitschie, Volhynia, Russia.	50
258	1796 Jan. 15	Bjelaja Zerkov, Kiev, Russia.	1
259	1899 Mch. 12	Bjurböle, South Coast of Finland.	5,800 - 6,030
260	1833 Nov. 25	Blansko, Brünn, Moravia, Austria.	14
261	1878 Found	Bluff, Fayette County, Texas.	21,707
262	1804 Nov. 24	Bocas, San Luis Potosi, Mexico.	1
263	1808 Apr. 19	Borgo San Donino, Cusignana, Italy.	1 + 6 = 7
264	1894 May 9	Bori, Badnúr, Centl. Provinces, Ind.	497
265	1812 Sept. 5	Borodino, Moscow, Russia.	1
266	1852 Oct. 13	Borkut, Marmoros, Hungary.	1
267	1823	Botschetschki, Kursk, Russia.	11
268	1855 May 13	Bremervörde (Gnarrenburg), Ger.	12
269	1863 June 2	Buschhof, Courland, Russia.	14
270	1852 Dec. 2	Bustee, N. W. Provinces, India.	5
271	1861 May 12	Butsura, Bengal, India.	27
272	1870 Aug. 18	Cabeza de Mayo, Murcia, Spain.	13
273	1861 May 14	Canellas, near Barcelona, Spain.	3

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes.
274	1866 Dec. 6	Cangas de Onis, Asturias, Spain.	59
275	1846 Aug. 14	Cape Girardeau, Missouri.	18
276	1888 known	Carcote, Atacama, Chili.	1
277	1874 May 14	Castalia, Nash County, N. Carolina.	28
278	1848 May 20	Castine, Hancock County, Maine.	1
279	1840 July 17	Cereseto, Piedmont, Italy.	10
280	1838 June 6	Chandakapur, Berar, India.	11
281	1812 Aug. 5	Chantonnay, Vendée, France.	46
282	1810 Nov. 23	Charsonville, Meung, Loiret, France.	42
283	1815 Oct. 3	Chassigny, Haute Marne, France.	10
284	1841 June 12	Château Renard, Loiret, France.	78
285	1838 Oct. 13	Cold Bokkeveldt, Cape Colony.	22
286	1890 Feb. 3 <i>1877 nov 19.</i>	Collescipoli, Terni, Italy.	63
287	1892 May 24	<i>Cronstadt, Russia</i> <del>cross roads, Wilson County, N. C.</del> S. Africa 4 1/2	18
288	1877 Jan. 23	Cynthiana, Harrison County, Ky.	6
289	1878 Sept. 5	Dandapur, Goruckpur, India.	65
290	1868 Mch. 20	Daniels Kuil, Griqualand, S. Africa.	12
291	1868 Nov. 27	Danville, Morgan County, Alabama.	5
292	1829 Aug. 14	Deal, near Long Branch, New Jersey.	1
293	1887 Jan. 21	De Cewsville, Ontario, Canada.	1
294	1877 Nov. 27	Dhulia, Bhagur, Khandeish, India.	1
295	1860 July 14	Dhurmsala, Kangra, Punjaub, Ind.	988
296	1884 Mch. 19	Djati-Pengilon, Java.	28
297	1864 June 26	Dolgovoli, Volhynia, Russia.	7
298	1805 Apr. 6	Doroninsk, Irkutsk, Asiatic Russia.	53
299	1827 May 9	Drake Creek, Nashville, Tenn.	129
300	1853 Mch. 6	Duruma, Wanikaland, East Africa.	5
301	1889 Found	Eli Elwah, New South Wales.	3 + 255
302	1492 Nov. 16	Ensisheim, Alsace, Germany.	37
303	1822 Sept. 13	Epinal (La Baffe), Vosges, France.	12
304	1812 Apr. 15	Erxleben, Magdeburg, Prussia.	49
305	1889 July	Ergheo, Somaliland, E. Africa.	3

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes.
306	1890 June 25	Farmington, Kansas.	6,753
307	1844 Oct. 21	Favars, Aveyron, France.	5
308	1894 Apr. 9	Fisher, Polk County, Minn.	297
309	1890 May 2	Forest, Winnebago County, Iowa.	4,967
310	1829 May 8	Forsyth, Monroe County, Georgia.	10
311	1868 Dec. 5	Frankfort, Franklin County, Ala.	7
312	1822 Nov. 30	Futtehpur, N. W. Provinces, India.	38
313	1826 May 25	Galapian, near Agen, France.	3
314	1879 Sept. 17	Gargantillo, Jalisco, Mexico.	3
315	1897 Sept. 15	Ghambat, Khaipur, India.	75
316	1889 described	Gilgoin Station, New South Wales.	8
317	1853 Feb. 10	Girgenti, Sicily.	46 <i>+ 1 = 47</i>
318	1879 May 17	Gnadenfrei, Prussian Silesia.	6 <i>+ 6.</i>
319	1868 Found	Goalpara, Assam, India.	4
320	1861 June 28	Grosnaja, Caucasus, Russia.	1
321	1837 July 24	Gross Divina, Trentschin, Hungary.	2
322	1881 Nov. 19	Gross-Liebenthal, nr. Odessa, Rus.	20
323	1841 Mch. 22	Grüneberg, Heinrichsau, Prus. Silesia.	3 <i>+ 8 = 11</i>
324	1892 July 20	Guarena, Province Badajoz, Spain.	6
325	1851 Apr. 17	Gütersloh, near Minden, Westphalia.	2
326	1859 Mch. 28	Harrison County, Indiana.	2
327	1847 Feb. 25	Hartford, Linn County, Iowa.	105
328	1857 Apr. 1	Heredia, San José, Costa Rica.	5
329	1869 Jan. 1	Hessle, near Upsala, Sweden.	407
330	1804 Apr. 5	High Possil, near Glasgow, Scotland.	4
331	1875 Feb. 12	Homestead, West Liberty, Iowa.	6,737
332	1825 Sept. 27	Honolulu, Hawaii, Sandwich Isls.	18
333	1877 May 17	Hungen, Hesse, Germany.	2 <i>+ 1 = 3</i>
334	1870 June 17	Ibbenbüren, Westphalia, Prussia.	2 <i>+ 2 = 4</i>
335	1887 Apr. 7	Iharaota, Lalitpur District, India.	— <i>- 10</i>
336	1891 Apr. 7	Indarch, Elizawetpol, Russia.	97

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes.
337	1889 Dec. 1	Jelica, Servia.	81
338	1894 Apr. 10	Jerome, Gove County, Kansas.	63
339	1873 June	Jhung, Punjab, India.	7
340	1819 June 13	Jonzac, Charente Inférieure, France.	5
341	1821 June 15	Juvinas, near Libonnez, France.	57
342	1857 Apr. 15	Kaba, Debreczin, Hungary.	2
343	1897 Found	Kansada, Ness County, Kansas.	2,530
344	1840 May 9	Karakol, Ajagus, Russia.	5
345	1874 Nov. 26	Kerilis, Côtes-du-Nord, France.	5 + 4 = 9
346	1869 May 22	Kernouvé, Cléguérec, Morbihan, Fr.	106
347	1850 June 13	Kesen, Iwate, Japan.	1,289
348	1873 Sept. 23	Khairpur, Mooltan, India.	64
349	1787 Oct. 12	Kharkov, Bobrik, Russia.	10
350	1867 Jan. 19	Khetrie, Rajpootana, India.	6
351	1809	Kikino, Viasma, Smolensk, Russia.	61
352	1844 Apr. 29	Killeter, County Tyrone, Ireland.	1
353	1862 Oct. 7	Klein-Menow, Mecklenburg, Ger.	29
354	1843 Sept. 16	Klein-Wenden, Erfurt, Prussia.	2
355	1866 June 9	Knyahinya, Hungary.	3,499
356	1869 May 5	Krähenberg, Rhenish Bavaria.	1
357	1811 Mch. 12	Kuleschovka, Poltava, Russia.	14
358	1879 Jan. 31	La Bécasse, Dun le Poëlier, France.	21
359	1871 June 14	Laborel, Drôme, France.	12
360	1872 July 23	Lancé, Loir-et-cher, France.	5 + 4 = 9
361	1803 Apr. 26	L'Aigle, Orne, France.	243
362	1897 June 20	Lancon, Bouches-du-Rhone, France.	10
363	1845 Jan. 25	Le Pressoir, Louans, France.	9
364	1857 Oct. 1	Les Ormes, Yonne, France.	1
365	1896 Apr. 13	Lesves, Namur, Belgium.	32
366	1845 July 14	Le Teilleul, Manche, France.	10
367	1813 Sept. 10	Limerick, Adare, Ireland.	52
368	1808 Sept. 3	Lissa, Bunzlau, Bohemia.	26

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes.
369	1820 July 12	Lixna (Lasdany), Dunaburg, Russia.	62
370	1891 Found	Long Island, Phillips Co., Kansas.	6,196
371	1768 Sept. 13	Lucé (Maine), Sarthe, France.	2
372	Prehistoric	Lujan, Villa Lujan, Argentine Rep.	2
373	1869 Oct. 6	Lumpkin, Stewart County, Georgia.	3
374	1889 Apr. 3	Lundsgard, Ljungby, Sweden.	34
375	1813 Dec. 13	Luotolax, Wiborg, Finland.	1
376	1753 Sept. 7	Luponnas, Ain, France.	15
377	1836 Nov. 11	Macao, Rio Grande do Norte, Brazil.	5
378	1870 ?	Mac Kinney, Colliu County, Tex.	51,230
379	1896 Feb. 10	Madrid, Spain.	1
380	1886 Nov. 10	Maémè, Hslugari, Japan.	244
381	1850 Found	Mainz, Hesse, Germany.	12
382	1879 Found	Makariwa, Invercargill, New Zealand.	3
383	1843 June 29	Manegaum, Khandeish, India.	1
384	1863 Dec. 22	Manbhook, Bengal, India.	18
385	1848 July 4	Marmande, Aveyron, France.	2
386	1835 Jan. 31	Mascombes, Corrèze, France.	7
387	1803 Dec. 13	Mässing (St. Nicholas), Bavaria.	1
388	1768 Nov. 20	Mauerkirchen, Upper Austria.	56
389	1801 Dec. 22	Mauritius, Isle de France, Ind. Ocean.	6
390	1897 May 19	Meuselbach, Schwartzburg, Thuringia.	3
391	1852 Sept. 4	Mezö-Madaras, Transylvania.	166
392	1827 Feb. 16	Mhow, North-west Provinces, India.	2
393	1881 Mch. 14	Middlesbrough, Yorkshire, England.	1
394	1889 June 18	Mighei, Olivopol, South Russia.	27
395	1842 Apr. 26	Milena, Warasdin, Croatia, Austria.	4
396	1888 described	Minas Geraes, ? Brazil.	4
397	1890 Apr. 10	Misshof, Baldon, Courland, Russia.	166
398	1882 Feb. 3	Mocs, Kolos, Transylvania.	3,876
399	1838 Dec. 24	Molina, Murcia, Spain.	10
400	1849 Oct. 31	Monroe, Cabarras County, N. C.	80
401	1846 May 8	Monte Milone, Macerata, Italy.	1
	1899 Jan. 25	mt. Zomba, British Cent. Africa	10

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes.
403	1838 July 22	Montlivault, Loir-et-cher, France.	2
403	1810 Aug.	Mooresfort, County Tipperary, Ire.	16
404	1826 May 19	Mordvinovka, Ekaterinoslaw, Rus.	12
405	1875 Sept.	Mornans, Bordeaux, Drôme, France.	12
406	1868 Dec. 22	Moteeka Nugla, Bhurtpur, India.	5
407	1868 Feb. 29	Motta di Conti, Piedmont, Italy.	67
408	1865 Sept. 21	Muddoor, Mysore, India.	5
409	1879 July 1	Nagaya, Entre Rios, Arg. Republic.	10
410	1875 Apr. 24	Nageria, Agra, India.	2
411	1886 Jan. 27	Nammianthal, Madras, India.	3
412	1825 Feb. 10	Nanjemoy, Charles Co., Maryland.	32
413	1890 June 6	Nawapali, Central Provinces, India.	2
414	1864 Apr. 13	Nerft, Courland, Russia.	62
415	1897 found	Ness County, Kansas.	9,949
416	1860 May 1	New Concord, Muskingum Co., O.	4,257
417	1883 Oct. 3	Ngawi, Djogorogo, Java.	9
418	1823 Aug. 7	Nobleboro, Lincoln County, Maine.	1
419	1886 Sept. 22	Nowo Urei, Krasnoslobodsk, Russia.	5
420	1851 Nov. 5	Nulles, Catalonia, Spain.	4
421	1895 Found	Oakley, Logan County, Kansas.	8,910
422	1855 May 11 1730 about	Oesel, Kaande, Livonia, Baltic Sea.	26
423	1833 Dec. 27	Okniny, Kremenetz, Volhynia, Russia.	10
424	1864 May 14	Orgueil, Tarn-et-Garonne, France.	10
425	1868 July 11	Ornans, Doubs, France.	50
426	1872 Aug. 31	Orvinio, Umbria, Italy.	26
427	1896 Apr. 9	Ottawa, Franklin County, Kansas.	35
428	1881 June 18	Pacula, Tacal, Hidalgo, Mexico.	188
429	1857 Feb. 28	Parnailee, Madras, India.	665
430	1882 Aug. 2	Pavlovka, Saratov, Russia.	3
431	1855 Aug. 5	Petersburg, Lincoln County, Tenn.	19
432	1887 Sept. 22	Phu Long, Binh Chanh, China.	11

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes <sup>3</sup>
433	1863 Aug. 8	Pillistfer, Aukoma, Livonia, Russia.	39
434	1887 Found	Pipe Creek, Bandera Co., Texas.	470
435	1884 Feb. 9	<del>1881 Aug. 19</del> Piramji, Dihaspur, India	4
436	1723 June 22	Plescowitz, near Reichstadt, Bohemia.	6
437	1819 Oct. 13	Politz, near Gera, Reuss, Germany.	3 + 5 = 8
438	1893 known	Prairie Dog Creek, Kansas.	63
439	1893 Feb. 13	Pricetown, Highland County, Ohio.	4
440	1868 Jan. 30	Pultusk, Sielce Nowy, Poland.	5,468
441	1857 Dec. 27	Quenggouk, Pegu, British Burmah.	302
442	1851 Summer	Quincay, Vienne, France.	3
443	1878 Nov. 20	Rakovka, Tula, Russia.	163
444	1824 Jan. 15	Renazzo, Cento, Ferrara, Italy.	4
445	1828 June 4	Richmond, Henrico County, Virginia.	X + 5 = 9
446	1876 Dec. 21	Rochester, Fulton County, Indiana.	2
447	1871 Spring	Roda, Huesca, Spain.	2 + 2 = 4
448	1866 Found	Rushville, Franklin Co., Indiana.	20
449	1855 June 7	St. Denis-Westrem, Belgium.	7 46 - 49
450	1866 May 30	Saint Mesmin, Aube, France.	4
451	1798 Mch. 12	Salles, Rhône, France.	9
452	1887 Found	San Emigdio Range, California.	27
453	1887 Found	San Pedro Springs, San Antonio, Tex.	3
454	1868 Sept. 7	Sanguis, St. Etienne, France.	6
455	1894 July 27	Sawtschenskoje, Cherson, Russia.	25
456	1715 Apr. 11	Schellin, Pomerania, Prussia.	1
457	1846 Dec. 25	Schönenberg, Swabia, Bavaria.	24
458	1871 May 21	Searsmont, Waldo County, Maine.	5
459	1853 Mch. 6	Segowlie, Bengal, India.	5 + 10 = 15
460	1773 Nov. 17	Sena, Sigena, Aragon, Spain.	3
461	1865 Aug. 25	Senhadja, Constantine, Algeria.	28 - 38
462	1880 June	Seres, Macedonia, Turkey.	- 38
463	1874 June 6	Sevrukovo, near Belgorod, Russia.	26

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes.
464	1850 Nov. 30	<b>Shalka</b> , Bancoorah, Bengal India.	6
465	1865 Aug. 25	<b>Sherghatty</b> , near Gya, Behar, India.	40
466	1863 Aug. 11	<b>Shytal</b> , near Dacca, India.	8
467	1794 June 16	<b>Siena</b> , Cosona, Italy.	13
468	1875 Mch. 4	<b>Sitathali</b> (Nurrah), Cent. Prov., India.	3
469	1848 Dec. 27	<b>Ski</b> , Amt Akershuus, Norway.	1
470	1868 May 22	<b>Slavetic</b> , Agram, Croatia, Austria.	4
471	1877 Oct. 13	<b>Soko-Banja</b> , Alexinatz, Servia.	394
472	1876 June 28	<b>Ställdalen</b> , Örebro, Sweden.	343
473	1808 May 22	<b>Stannern</b> , Igau Moravia, Austria.	272
474	1857 Apr. 5	<b>Stavropol</b> , Caucasus, Russia.	2
475	1883 Jan. 28	<b>St. Caprais-de-Quinsac</b> , France.	4
476	1865 Jan. 19	<b>Supuhee</b> , Goruckpur Disct., India.	13
477	1753 June 3	<b>Tabor</b> (Plan, Strkow), Bohemia.	24
478	1887 Aug. 30	<b>Tabory</b> (Ochansk), Perm, Russia.	1,958
479	1867 June 9	<b>Tadjera</b> , near Guidjel, Setif, Algeria.	2
480	1875 Found	<b>Taltal</b> , Chili, S. A.	16
481	1872 June 28	<b>Tennassilm</b> , Esthland, Russia.	73
482	1878 July 15	<b>Tieschitz</b> , Prerau, Moravia.	2.5
483	1807 Mch. 25	<b>Timochin</b> , Juchnov, Smolensk, Russia.	6
484	1869 Sept. 19	<b>Tjabe</b> , Padangan, Java.	22
485	1879 Sept. 17	<b>Tomatlan</b> , Jalisco, Mexico.	1
486	1863 Found	<b>Tomhannock Creek</b> , New York.	18
487	1812 Apr. 12	<b>Toulouse</b> (Grenade), France.	14
488	1863 Dec. 7	<b>Tourinnes-la-Grosse</b> , Belgium.	11
489	1890 described	<b>Travis County</b> , Texas.	7
490	1856 Nov. 12	<b>Trenzano</b> , Brescia, Italy.	47
491	1884 May 20	<b>Tysnes Island</b> , Norway.	428
492	1866 April	<b>Udipi</b> , South Canara, India.	15
493	1822-3	<b>Umballa</b> , Punjab, India.	5
494	1843 June 2	<b>Utrecht</b> (Blaauw-Kapel), Netherl'ds.	109

No.	Date of Fall.	NAME AND LOCALITY.	Weight in grammes
495	1876 June 19	Vavilovka, Kherson, Russia.	23
496	1865 Mch. 26	Vernon County, Wisconsin.	— 8
497	1813 May 13	Vouillé, nr. Poitiers, Vienne, France.	668
498	1873 Found	Waconda, Mitchell Co., Kansas.	1,099
499	1877 Jan. 3	Warrenton, Warren Co., Missouri.	117
500	1831 Sept. 9	Wessely, Hradisch, Moravia, Austria.	4
501	1807 Dec. 14	Weston, Fairfield County, Conn.	65
502	1785 Feb. 19	Wittmess, Eichstt, Bavaria.	13
503	1795 Dec. 13	Wold Cottage, Yorkshire, England.	10
504	1852 Jan. 23	Yatoor, Nellore, Madras, India.	5
505	1877 June 17	Yodz�, Ponevezj, Russia.	1
506	1869	Yorktown, Westchester Co., N. Y.	8
507	1818 Apr. 10	Zaborzika, Volhynia, Russia.	4
508	1893 Sept. 22	Zabrodge, Govt. Wilna, Russia.	4
509	1897 Aug. 1	Zavid, Bosnia, Bohemia.	455
510	1824 Oct. 14	Zebrak (Praskoles), Bohemia.	14

**ADDED.**

511	1900 May	Felix, Perry Co., Alabama.	50
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*missing*

~~265 - 316 - 356 - 371 - 385 - 399 - 306~~

**SUMMARY OF COLLECTION.**

Total number of falls and finds,	- - - -	511
From North America,	- - - -	201
" South America,	- - - -	23
" Europe,	- - - -	189
" Asia,	- - - -	58
" Africa,	- - - -	17
" Australia,	- - - -	23
		<b>2,023,396</b>
Total weight of entire collection,		1,786.27 grammes (= <del>3466</del> pounds).
Average weight of each kind,	<del>3,960</del>	grammes (= <del>8</del> <sup>1</sup> / <sub>2</sub> pounds).
Average weight, counting nothing over 50 kilograms to a kind,	1,175	grammes (= <del>2</del> <sup>1</sup> / <sub>2</sub> pounds).
Total number of specimens, large and small, about	- -	1,500



STYLE OF MOUNTING USED IN ENTIRE COLLECTION.  
(Pedestals solid mahogany, with celluloid labels.)

**MISCELLANEOUS.**

		Grammes
Chondri	from Allegan Ærolite.	1
Cohenite	" Cañon Diablo Siderite.	3
"	" Beaconsfield Siderite.	1
Graphite	" Cosby's Creek Siderite.	12
Olivine	" Brenham Siderolite.	23
Rhabdite	" Misteca Siderite.	<del>1</del> <del>1</del>
"	" Descubridora Siderite.	<del>2</del> <del>2</del>
"	" Rancho de la Pila Siderite.	<del>2</del> <del>2</del>
Schreibersite	" São Julião Siderite.	189
Taenite	" Magura Siderite.	3
"	" Welland Siderite.	1
Troilite	" Siderite.	29
"	" Chupaderos Siderite.	12

*Baked Clay from Forest mounds*

**PSEUDO - METEORITES.**

We have those mentioned below of these *false kinds*, which we have cast out from our present catalogue. We find them and several others frequently listed in catalogues as being true meteorites. They are:

Aachen (Rhenish Prussia).	Moscow (Russia).
Alexander County.	Mukwanago.
Cincinnati.	Newstead.
Concord, N. H.	Scriba.
Hemalga (Tarrapaca).	Thunder Bay.
Hommoney Creek.	Turon River.
Igast.	

**TERRESTRIAL.**

Noursoak Peninsula, West Greenland.	250	585
Ovifak, Disko Island, West Greenland.	10,816	
Cohenite from Niakornak, West Greenland Iron.		2

# CASTS OF METEORITES.

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## SIDERITES.



CHUPADEROS, CHIHUAHUA, MEXICO.

**Babb's Mills**, Greene County, Tenn. Mentioned 1842.

Size, 13 x 25 x 90 mm. Original weight 136 kilograms.

**Ballinoo**, West Australia. Found 1893.

Size, 11 x 27 x 34 mm. Original weight 42.9 kilograms.

**Bella Roca**, Durango, Mexico. Found 1888.

Size, 14 x 20 x 34 mm. Original weight 33 kilograms.

**Bingara**, New South Wales. Found 1880.

Size, 4 x 4 x 5 cm. Original weight 240 grammes.

**Braunau**, Hauptmannsdorf, Bohemia. Fell July 14, 1847.

Size, 14 x 19 x 22 cm. Original weight 19.1 kilograms.

**Cabin Creek**, Johnson Co., Arkansas. Fell March 27, 1886.

Size, 11 x 38 x 42 cm. Original weight 44.2 kilograms.

**Carlton**, Hamilton County, Texas. Found 1887.

Size, 23 x 33 x 45 cm. Original weight 81.5 kilograms.

**Chilcat**, Portage Bay, Chilcat Inlet, Alaska. Fell 1871?

Size, 15 x 31½ x 33 cm. Original weight 42.5 kilograms.

**Chupaderos**, Chihuahua, Mexico. Found 1581.

Size, 51 x 154 x 184 cm. Original weight 9,289 kilograms.

(This model, made by the Mexican Government, is of *papier maché*.)

**Cleveland (Lea Iron)**, East Tennessee. Found 1860.

Size, 20 x 40 x 48 cm. Original weight 115.2 kilograms.

**Costilla Peak**, New Mexico. Found 1881.

Size, 13 x 23 x 31 cm. Original weight 35.3 kilograms.

**Glorieta Mountain**, Santa Fé Co., New Mex. Found 1884.

Size, 16 x 24 x 41 cm. Original weight 52.3 kilograms.

**Hex River**, Cape Colony, South Africa. Found 1882.

Size, 20 x 23 x 50 cm. Original weight 64 kilograms.

**Joe Wright Mountain**, Independence Co., Ark. Found 1884.

Size, 21 x 21 x 42 cm. Original weight 42.5 kilograms.

**Juncal**, Atacama, Chili, S. A. Found 1866.

Size, 17 x 18 x 32 cm. Original weight 104 kilograms.

**Kenton County**, Kentucky. Found August, 1889.

Size, 20 x 35 x 56 cm. Original weight 163 kilograms.

**Kokstad**, Griqualand, South Africa. Described 1887.

Size, 9 x 32 x 66 mm. Original weight 42.6 kilograms.

**Luis Lopez**, Socorro County, New Mexico. Found 1896.

Size, 8 x 13 x 19 cm. Original weight 6.7 kilograms.

**Merceditas**, Chañaral, Atacama, Chili. Known 1884.

Size, 18 x 20 x 32 cm. Original weight 43.4 kilograms.

**Mungindi**, Queensland, Australia. Found 1897.

Size, 17 x 24½ x 39 cm. Original weight 28.1 kilograms.

**Nocoleche**, New South Wales. Known 1895.

Size, 15 x 23 x 23 cm. Original weight 20 kilograms.

**Plymouth**, Marshall County, Indiana. Found 1893.

Size, 7 x 19 x 31 cm. Original weight about 14.5 kilograms.

**Puquios**, Chili, South America. Found 1885.

Size, 8 x 13 x 23 cm. Original weight 6.5 kilograms.

**Roebourne**, West Australia. Found 1892.

Size, 17 x 34 x 57 cm. Original weight 86.8 kilograms.

**Rosario**, Olancho, Honduras, Central America. Found 1897.

Size, 7 x 8 x 12 cm. Original weight 2.9 kilograms.

**Sarepta**, Saratov, Russia. Found 1854.

Size, 10 x 20 x 22 cm. Original weight 14.3 kilograms.

**Scottsville**, Allen County, Kentucky. Found 1867.

Size, 14 x 16 x 18 cm. Original weight 10 kilograms.

**Staunton**, Augusta County, Virginia. Found 1858.

Size, 18 x 26 x 44 cm. Original weight 68.9 kilograms.

**Surprise Springs**, San Bernardino Co., Cal. Found 1899.

Size, 6 x 6½ x 10 cm. Original weight 1.5 kilograms.

**Thurlow**, Ontario, Canada. Found May 12, 1888.

Size, 10 x 15 x 15 cm. Original weight 5.4 kilograms.

**Welland**, Ontario, Canada. Found 1888.

Size, 7 x 15 x 20 cm. Original weight 8 kilograms.

**Werchne-Udinsk**, Niro River, Russia. Found 1854.

Size, 12 x 16 x 28 cm. Original weight 18.5 kilograms.

**Wichita County**, Brazos River, Texas. Found 1836.

Size, 18 x 31 x 42 cm. Original weight 145 kilograms.

## SIDEROLITES.

**Breitenbach**, Erzgebirge, Bohemia. Found 1861.

Size, 12 x 16 x 24 cm. Original weight 10.5 kilograms.

**Brenham**, Kiowa County, Kansas. Found 1885.

Size, 14 x 17 x 20 cm.

**Crab Orchard, No. 1**, Rockwood, Tenn. Found 1887.

Size, 21 x 24 x 35 cm. Original weight 38.5 kilograms.

**Crab Orchard, No. 2**.

Size, 9 x 16 x 20 cm. Original weight 2.6 kilograms.

**Crab Orchard, No. 3**.

Size, 8 x 12 x 15 cm. Original weight 1.6 kilograms.

## AEROLITES.

**Akburpur**, Saharanpur, North-west Provinces, India.

Fell April 18, 1838.

Size, 9 x 10 x 12 cm. Original weight 1.8 kilograms.

**Bluff**, Fayette County, Texas. Found 1878.

Size, 29 x 40 x 46 cm. Original weight 146 kilograms.

**Bustee**, near Goruckpur, India. Fell December 2, 1852.

Size, 7 x 11 x 11 cm. Original weight 1.3 kilograms.

**Butsura**, Qutahar Bazaar, Bengal, India. Fell May 12, 1861.

Size, 29 x 35 x 40 cm.

**Butsura**, Piprassi, Bengal, India. Fell May 12, 1861.

Size, 7 x 13 x 25 mm.

**Butsura**, Chireya, Bengal, India. Fell May 12, 1861.

Size, 10 x 11½ x 21 cm.

**Butsura**, Bulloah, Bengal, India. Fell May 12, 1861.

Size, 3 x 5 x 7 cm.

**Butsura**, Bengal, India. Fell May 12, 1861.

(Five pieces, including above four, put together forming one stone.)

Size, 29 x 35 x 40 cm. Weight 22 kilograms.

**De Cewsville**, Ontario, Canada. Fell January 21, 1887.

Size, 5 x 6 x 7 cm. Original weight 340 grammes.

**Durala**, N. W. of Kurnal, Punjab, India. Fell Feb. 18, 1815.

Size, 16 x 20 x 25 cm. Original weight 13 kilograms.

**Farmington**, Washington Co., Kansas. Fell June 25, 1890.

Size, 18 x 43 x 49 cm. Original weight 81.6 kilograms.

**Goalpara**, Assam, India. Found 1868.

Size, 7 x 14 x 15 cm.

**Goalpara**, Assam, India. Found 1868.

Size, 7 x 10 x 12 cm.

**Homestead**, West Liberty, Iowa County, Iowa.

Fell February 12, 1875. Size, 18 x 24 x 25 cm.

**Karakol**, Ajagus, Kirghiz Steppes, Russia. Fell May 9, 1840.

Size, 10 x 13 x 15 cm. Original weight 3 kilograms.

**Khiragurh**, S. E. of Bhurtpur, India. Fell March 28, 1860.

Size, 5 x 6 x 7 cm.

**Krähenberg**, Zweibrücken, Rhenish Bavaria.

Fell May 5, 1869. Size, 12 x 21 x 28 cm. Original weight 16.5 kilograms.

**MacKinney**, Collin County, Texas. Fell 1870?

Size, 15 x 16 x 20 cm.

**Middlesbrough**, Yorkshire, England. Fell March 14, 1881.

Size, 9 x 11 x 15½ cm. Original weight 1.6 kilograms.

**Misshof**, Baldon, Courland, Russia. Fell April 10, 1890.

Size, 13 x 14 x 17 cm. Original weight 5.8 kilograms.

**Monte Milone** (Pollenza), Macerata, Italy. Fell May 8, 1846.

Size, 9 x 12 x 14 cm. Original weight 5 kilograms.

**Nagy-Divina**, near Budetin, Trentschin, Hungary.

Fell July 24, 1837. Size, 15 x 23 x 24 cm. Original weight 10.5 kgms.

**New Concord**, Muskingum Co., Ohio. Fell May 1, 1860.

Size, 5 x 6 x 8 cm.

**Parnallee**, Madras, India. Fell February 28, 1857.

Size, 23 x 24 x 41 cm. Original weight 74 kilograms.

**Segowlie**, Bengal, India. Fell March 6, 1853.

Size, 13 x 15 x 16 cm.

**Segowlie**, Bengal, India. Fell March 6, 1853.

Size, 9 x 9 x 9½ cm.

**Segowlie**, Bengal, India. Fell March 6, 1853.

Size, 6 x 8 x 8 cm. (The above three are portions of the same stone.)

**Segowlie**, Bengal, India. Fell March 6, 1853.

Size, 4 x 4 x 7 cm.

**Wold Cottage**, Thwing, Yorkshire, England.

Fell Dec. 13, 1795. Size, 12 x 17 x 22 cm. Original weight 25.5 kgms.

**Yatoor**, Nellore, Madras, India. Fell January 23, 1852.

Size, 14 x 18 x 20 cm. Original weight 13 kilograms.

## MEDALS OF METEORITES.

The people of antiquity looked upon the heavenly bodies as the places of abode of gods and beings higher than mankind. Thus it came to pass that they gave divine worship to objects which were seen to fall from the celestial spaces. They built special temples, in which they preserved them with sacred care. They were also displayed for public worship under a priest appointed for the especial purpose. These Meteorites received from the early Greeks the name *Betylēs* (*Βετυλας*), probably from the earlier Hebraic *Beth-el*, or home of God. In the early centuries—both B. C. and A. D.—the habit prevailed in Macedonia, Cyprus, Mallos, Perge, Sidon, Tripolis, Tyrus and many other places to make medals to commemorate the fall of meteorites. Such medals were struck by order of Philip II, Alexander III, Augustus, Caligula, Vespasian, Trajan, Marcus Aurelius, Septimus Severus, Heliogabalus, Tacitus and others. Dr. Aristid Brezina, of Vienna,

has given much study to this numismatic meteorology. From him our collection has obtained a series of 60 casts of Meteoric Medals. We restrict our mention to four of these which are figured below. They are:

**Paphian Venus.** (Fig. 1.)

A pointed, conical stone; the sacred simulacrum of Paphian Venus, which was worshipped for many ages in the Isle of Cyprus. Medals struck by Galba (68-69); Vespasian (69-79); Trajan (98-117) A. D.



FIG. 1.



FIG. 2.

**Diana Pergäa.** (Fig. 2.)

A bee-hive shaped stone in a two-pillared temple; the simulacrum of Diana of Perge (Pamphylia, Asia Minor). Copper and silver coins of Trajan (98-117 A. D.) Also silver coin struck by the same emperor (showing same stone simulacrum) in Rome.

**Zeus Kasios.** (Fig. 3.)

The stone (a simulacrum of Zeus Kasios) is hanging by a chain from a four-pillared temple or frame, in Seleucia, Pieria, Northern Syria. Medal of Trajanus (98-117 A. D.)



FIG. 3.



FIG. 4.

**Emisa.** (Fig. 4.)

A conical stone, carried on a quadriga under four sunshades. Medals struck by Antonius Pius (138-161 A. D.) in Emisa, Syria. Afterwards taken to Rome by Elagabulus (218-222), where he struck three silver denarii.

Herodotus says of this Batyl: "A large stone, which on the lower side is round, and above runs gradually to a point. It has nearly the form of a cone, and is of a black color. *People say of it in earnest that it fell from Heaven.*"