

SMITHSONIAN INSTITUTION.  
UNITED STATES NATIONAL MUSEUM.

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THE METEORITE COLLECTION IN THE U. S.  
NATIONAL MUSEUM: A CATALOGUE OF  
METEORITES REPRESENTED  
NOVEMBER 1, 1886.

BY

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*Honorary Curator of the Department of Mineralogy.*

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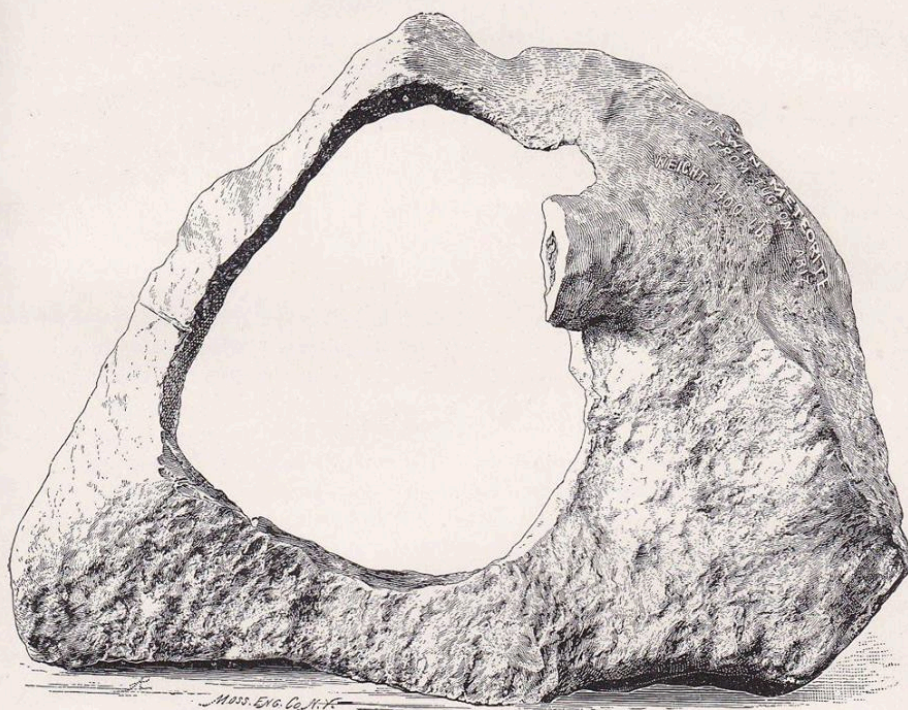
By F. W. CLARKE.

The following catalogue has been prepared mainly to facilitate exchanges and to aid in the upbuilding of the collection. In addition to the usual information as to title, date of fall, and weight of specimen, it has been thought well to give the source from which each example was obtained; and it may be interesting to note that the meteorites accredited to Dr. J. Berrien Lindsley were mainly received by him from the late Dr. J. Lawrence Smith. In the catalogue of the Shepard collection, now on deposit in the Museum, the arrangement of Professor Shepard himself has been followed without change. Including the Shepard meteorites, over 200 falls are now on exhibition, giving the entire collection a very respectable place among the larger collections of the world. The Tucson iron is unique, and therefore a cut of it is inserted.

METEORIC IRONS.

1. SCRIBA, Oswego County, N. Y. Found about 1834. Fragment, 9.15 grammes. By exchange from S. C. H. Bailey.
2. BURLINGTON, Otsego County, N. Y. Ploughed up previous to 1819. Weight of specimen, 76.87 grammes. By exchange from Prof. C. U. Shepard.
3. LOCKPORT, Niagara County, N. Y. Ploughed up earlier than 1845. Slice weighing 155 grammes. By exchange from the cabinet of Yale College.
4. JENNY'S CREEK, Wayne County, W. Va. Found in 1884. Several small fragments, 25.5 grammes in all; largest fragment, 15.3 grammes. By exchange from G. F. Kunz.
5. STAUNTON, Augusta County, Va.—
  - A. From mass described by Mallet, a slice weighing 145 grammes. By exchange from Ward and Howell.
  - B. From the "Fifth" mass described by Kunz, four fragments weighing in all 9.86 grammes. By exchange from G. F. Kunz.
6. ROCKINGHAM COUNTY, Va. Found earlier than 1863. Weight of specimen 58.8 grammes. By exchange from the cabinet of Harvard University.
7. JEWELL HILL, Madison County, N. C. 91 grammes. Gift of J. Berrien Lindsley.
8. RUFF'S MOUNTAIN, Lexington County, S. C. Fragment, 9.7 grammes. By exchange from Prof. C. U. Shepard.
9. LEXINGTON COUNTY, S. C. Described in 1881. 65 grammes. By exchange from Prof. C. U. Shepard.

10. DALTON, Whitfield County, Ga. Found in 1879. The mass described by Shepard. 36.4 grammes. By exchange from Prof. C. U. Shepard.
11. LOSTTOWN, Cherokee County, Ga. Ploughed up in 1868. Fragment, 6.65 grammes. By exchange from Prof. C. U. Shepard.
12. PUTNAM COUNTY, Ga. Found in 1839. 328 grammes. Gift of J. Berrien Lindsley.
13. CHULAFINEE, Cleberne County, Ala. Ploughed up in 1873. Fragment, 8.6 grammes. By exchange from B. Stürtz.
14. AUBURN, Macon County, Ala. Ploughed up previous to 1869. 28.8 grammes. By exchange from Prof. C. U. Shepard.
15. COCKE COUNTY, Tenn. Described in 1840. Fragment, 7.24 grammes. By exchange from Ward and Howell.
16. BABB'S MILL, Green County, Tenn. Ploughed up earlier than 1842. Weight of specimen, 38.4 grammes. By exchange from the cabinet of Harvard University.
17. TAZEWELL, Claiborne County, Tenn. Ploughed up in 1853. 152 grammes. Gift of J. Berrien Lindsley.
18. CARTHAGE, Smith County, Tenn. Found about 1844. Weight of specimen, 65 grammes. By exchange from cabinet of Harvard University.
19. COOPERTOWN, Robertson County, Tenn. Found in 1860. Section, measuring 16 centimeters by 10 centimeters, and weighing 633 grammes. Gift of D. Crockett, through J. Berrien Lindsley.
20. MURFREESBORO, Rutherford County, Tenn. Found about 1847-'48. Weight of specimen, 57.5 grammes. By exchange from cabinet of Harvard University.
21. TENNESSEE. The "Lea iron" of the Philadelphia Academy of Natural Sciences. Slice weighing 221 grammes. By exchange from the Academy of Natural Sciences.
22. LAGRANGE, Oldham County, Ky. Found in 1860. 223 grammes. Gift of J. Berrien Lindsley.
23. ALLEN COUNTY, Ky. Found in 1867. Two specimens, 66.5 and 33.3 grammes, the larger one showing a troilite nodule; also a plaster model of the original mass. Received from Ward and Howell.
24. NELSON COUNTY, Ky. Ploughed up in 1860. A slice, weighing 370 grammes, and a rough surface fragment of 217 grammes. Gift of J. Berrien Lindsley.
25. MADISONVILLE, Ohio. Found in a prehistoric mound, No. 3 of the Turner Group. Fragment, weighing 14.8 grammes. Gift of Peabody Museum of American Archaeology.
26. WALKER TOWNSHIP, Kent County, Mich., near Grand Rapids. Found about May 15, 1883. Nearly entire, weight 47,650 grammes; with a fac-simile cast to show the original state of the iron. Deposited by C. G. Pulcher.
27. TRENTON, Washington County, Wis. 327 grammes.
28. BUTLER, Bates County, Mo. Weight of specimen, 270 grammes. By exchange from the cabinet of Harvard University.
29. CABIN CREEK, Johnson County, Mo. Seen to fall, March 27, 1886. Fragment, weight 33.65 grammes. Gift of J. C. Betten. Also a facsimile model.
30. BEAR CREEK (Aeriotopos), Colo. Found in 1866. 27.73 grammes. By exchange from the cabinet of Amherst College.
31. WICHITA COUNTY, Tex. Described in 1884. Weight of fragment, 20.8 grammes. By exchange from Prof. C. U. Shepard.
32. RED RIVER, Tex. The Gibbs Meteorite. Fragment, 10.6 grammes. By exchange from the cabinet of Harvard University.
33. GLORIETA MOUNTAIN, Santa Fé County, N. Mex. Found in 1884. 380 grammes. By exchange from G. F. Kunz.
34. ALBUQUERQUE, N. Mex. Found about 1884. 2.61 grammes of turnings. Gift of L. G. Eakins.
35. SHINGLE SPRINGS, El Dorado County, Cal. Found in 1869-'70. Weight of specimen, 32.4 grammes. By exchange from cabinet of Yale College.



THE TUCSON, IRWIN, AINSA, OR SIGNET METEORITE.

36. TRINITY COUNTY, Cal. Found about 1875. 3.65 grammes of clippings. By exchange from Prof. C. U. Shepard.
37. IVANPAH, San Bernardino County, Cal. Described in 1880. 70 grammes of turnings. Gift of State Mining Bureau of California.
38. TUCSON, Ariz. The Signet, Irwin, or Ainsa meteorite. Originally from the Santa Catarina Mountains, but long used in Tucson for an anvil. Weight, about 630 kilogrammes, or 1,400 pounds. Height, 97 centimeters; greatest width, 124 centimeters; width of opening, 68 centimeters; greatest thickness of ring, 49 centimeters; least thickness of ring, 4.5 centimeters. Gift of Dr. B. J. D. Irwin, U. S. Army.
39. SANCHA ESTATE, Coahuila, Mexico. The Couch meteorite. Weight, 105,400 grammes. Gift of Lieut. Darius N. Couch, U. S. Army.
40. SANTA ROSA, Coahuila, Mexico. The iron described by Lupton in 1885. Fragment, weighing 19.3 grammes. Gift of Prof. N. T. Lupton.
41. ZACATECAS, Mexico. Fragment, 14.8 grammes. Gift of J. Berrien Lindsley.
42. TOLUCA, Mexico. One polished slice, 850 grammes. From Ward and Howell in exchange.  
One mass of Xiquipilco, 31,298 grammes. Gift of the National Museum of Mexico.
43. CHIHUAHUA, Mexico. An uncut mass, to be described. Weight about 1,800 kilogrammes.
44. SAN LOUIS POTOSI, Mexico. Fragment, weighing 57.4 grammes. Received among the Grant relics.
45. TOCAVITA, New Granada. Found in 1810. A fragment of less than 1 gramme. By exchange from S. C. H. Bailey.
46. SANTA CATARINA, Brazil. Found in 1875. Fragment, weighing 82.4 grammes. By exchange from the cabinet of Yale College.
47. GREENLAND. (Not Ovifak). Weight, 15.65 grammes. By exchange from S. C. H. Bailey.
48. ROWTON, Shropshire, England. Fell April 20, 1876. Weight of specimen, 19.5 grammes. By exchange from the British Museum.
49. OBERNKIRCHEN, Schaumburg-Lippe, Germany. Weight of specimen, 152.5 grammes. By exchange from the British Museum.
50. SEELÄSGEN, Brandenburg, Prussia. Weight of specimen, 104.5 grammes. By exchange from B. Stürtz.
51. BRAUNAU, Bohemia. Fell July 14, 1847. Fragment, 7.35 grammes. By exchange from S. C. H. Bailey.
52. ARVA, Hungary. Described in 1844. 98 grammes. By exchange from S. C. H. Bailey.
53. CAPE OF GOOD HOPE, Africa. Found in 1793. 28.95 grammes. By exchange from Prof. C. U. Shepard.
54. ORANGE RIVER, South Africa. Weight of specimen, 99.4 grammes. By exchange from the cabinet of Amherst College.
55. LION RIVER, Great Namaqualand, South Africa. Described in 1853. 34.87 grammes. By exchange from the cabinet of Amherst College.
56. CRANBOURNE, Victoria, Australia. 25.3 grammes of fragments, heated in hydrogen; and a nodule of troilite weighing 71.5 grammes. By exchange from the British Museum.
57. LOCALITY UNKNOWN. Partially described by Shepard in 1881. Found without record in the old Smithsonian collection. Specimen nearly entire, weighing 3,510 grammes.
58. THE ABERT IRON. Locality unknown. Found without label, entire, in a collection of minerals made by the late Col. J. J. Abert, and presented to the Museum by his son, J. T. Abert. Original weight, 456 grammes. There now remain in the collection—the main mass, 150 grammes; a polished section, 49 grammes.

## STONY IRONS.

59. ESTHERVILLE, Emmet County, Iowa. Shower fell May 10, 1879.  
Stony fragment, 145 grammes; fragment showing peckhamite, 82 grammes; two small fragments of olivine; seven masses of iron, aggregating 65 grammes.  
Gift of Charles P. Birge.  
Thirty-one small irons, 96 grammes. By exchange from Prof. C. U. Shepard.
60. RITTERSGRÜN, Saxony. Found in 1833. 38 grammes. Gift of Adrian Van Sinderen.
61. BREITENBACH, Bohemia. Found in 1861. Weight of specimen, 53.7 grammes.  
By exchange from the British Museum.
62. KRASNOJARSK, Siberia. The "Pallas iron," found in 1749. Fragment, 6.8 grammes. By exchange from S. C. H. Bailey.
63. SIERRA DE CHACO, Vaca Muerta, Desert of Atacama, South America. 449 grammes. From University of St. Jago, Chili.
64. IMILAC, Desert of Atacama, South America. Specimen weighing 197 grammes, and several fragments. Collected by Lient. F. M. Gilliss, U. S. Navy.

## METEORIC STONES.

65. SEARSMONT, Me. Fell May 21, 1871. Two fragments, 16 grammes. Gift of A. C. Hamlin.
66. TOMHANNOCK CREEK, Rensselaer County, N. Y. Found in 1863-'64. Thin slice, not weighed. By exchange from S. C. H. Bailey.
67. DRAKE CREEK, Nashville, Tenn. Fell May 9, 1827. Fragment, 28 grammes.  
By exchange from cabinet of Harvard University.
68. CASTALIA, Nash County, N. C. Fell May 14, 1874. Fragment, 19.7 grammes.  
By exchange from cabinet of Harvard University.
69. HARRISON COUNTY, Ind. Fell March 28, 1859. Fragment, 10.4 grammes. Gift of J. Berrien Lindsley.
70. ROCHESTER, Fulton County, Ind. Fell December 21, 1876. Fragment, 2.0 grammes. By exchange from Prof. C. U. Shepard.
71. NEW CONCORD, Guernsey County, Ohio. Fell May 1, 1860.  
One stone, 197 grammes. Gift of Prof. E. B. Andrews.  
One large fragment, 1,720 grammes. Gift of J. Berrien Lindsley.
72. IOWA COUNTY, Iowa. Fell February 12, 1875.  
One stone, 322 grammes. By exchange from Prof. C. U. Shepard.  
One fragment, 79 grammes. Gift of Prof. J. R. Eastman.
73. CAPE GIRARDEAU, Mo. Fell August 14, 1846. Fragment, 4.35 grammes. By exchange from cabinet of Yale College.
74. LITTLE PINEY, Pulaski County, Mo. Fell February 13, 1839. Fragment, 2.0 grammes. By exchange from Prof. C. U. Shepard.
75. WARRENTON, Warren County, Mo. Fell January 3, 1877. Fragment, 10.8 grammes. By exchange from Prof. C. U. Shepard.
76. WACONDA, Mitchell County, Kans. Found in 1874. Fragment, 8.0 grammes.  
Gift of G. W. Chapman.
77. SALT LAKE CITY, Utah. Found in 1869. Fragment, 2.81 grammes. By exchange from cabinet of Yale College.
78. TAMATLAN, Jalisco, Mexico. Fell in August, 1879. Fragment, 4.14 grammes.  
By exchange from Prof. C. U. Shepard.
79. UTRECHT, Netherlands. Fell June 2, 1843. One fragment of 2.7 grammes, and 25.9 grammes of coarse powder. By exchange from B. Stürtz.
80. L'AIGLE, Orne, France. Fell April 26, 1803. Fragment, 56 grammes. By exchange from S. C. H. Bailey.
81. JUVINAS, Ardeche, France. Fell June 15, 1881. Fragment, 1.82 grammes. By exchange from Prof. C. U. Shepard.

82. ALFIANELLO, near Brescia, Italy. Fell February 16, 1883. Fragment, 61.3 grammes. By exchange from Ward and Howell.
83. SKI, Amt Akershuus, Norway. Fell December 27, 1848. Fragment, 0.25 grammes. By exchange from Prof. C. U. Shepard.
84. HESSLE, near Upsala, Sweden. Fell January 1, 1869. Stone nearly perfect, 11.2 grammes. By exchange from S. C. H. Bailey.
85. PULTUSK, Poland. Fell January 30, 1868. Entire stone, 158 grammes. By exchange from Ward and Howell.
86. KNYAHINYA, Hungary. Fell June 9, 1866. Fragment, 27.8 grammes. By exchange from cabinet of Harvard University.
87. MOCS, Kolos, Transylvania. Fell February 3, 1882. Entire stone, 95 grammes. By exchange from Ward and Howell.
88. STANNERN, Moravia. Fell May 22, 1808. Fragments, 14.0 grammes. By exchange from B. Stüertz.
89. SIKKENSAARE, Tennassilm, Russia. Fell June 28, 1872. Fragment, 48.2 grammes. By exchange from B. Stüertz.
90. SOKO-BANJA, Alexinatz, Servia. Fell October 13, 1877. Fragment, 1.75 grammes. By exchange from Prof. C. U. Shepard.
91. KRAKHUT, Benares, India. Fell December 19, 1798. Fragment, 0.55 gramme. By exchange from Prof. C. U. Shepard.
92. DHURMSALA, Punjab, India. Fell July 14, 1860. Fragment, 47.5 grammes. By exchange from B. Stüertz.
93. CHANDAKAPUR, Berar, India. Fell June 6, 1838. Fragment, 3.9 grammes. By exchange from S. C. H. Bailey.
94. SITATHALI, Central Provinces, India. Fell March 4, 1875. Fragment, 13.5 grammes. By exchange from the British Museum.
95. PARNALLEE, Madras, India. Fell February 28, 1857. Fragment, 87 grammes. Gift of Prof. C. A. Young.
96. MOTEKA-NUGLA, Bhurtpur, India. Fell December 22, 1868. Fragment, 2.8 grammes. By exchange from the British Museum.
97. JHUNG, Punjab, India. Fell in June, 1873. Small fragments, 1.22 grammes in all. By exchange from Ward and Howell.
98. BUTSURA, Bengal, India. Fell May 12, 1861. Fragment, 11 grammes. By exchange with the British Museum.
99. BANDONG, Java. Fell December 10, 1871. Fragment, 1.6 grammes. By exchange from Prof. C. U. Shepard.
100. COLD BOKKEVELDT, Cape Colony, Africa. Fell October 13, 1838. Fragment, 4.0 grammes. Gift of United States Consul J. Vorsfeld.

## DOUBTFUL METEORITES.

101. JEFFERSON COUNTY, Tenn. Found near New Market Station. Weight, 571 grammes. Obtained at the locality in 1885 by Mr. Ira Sayles, U. S. Geological Survey. An iron of peculiar character, not certainly meteoric.

## ADDENDA.

*Bringing the catalogue down to October 20, 1888.*

101. WESTON, CONN. Fell December 14, 1807. Fragment, 17 grammes. By exchange with J. R. Gregory.
102. GREENBRIER COUNTY, W. VA. Iron. Fragment, 11 grammes. By exchange with the British Museum.
103. CHATTOOGA COUNTY, GA. Iron. Fragment, 19.5 grammes. Gift of G. F. Kunz.
104. WALKER COUNTY, ALA. Iron. Found in 1832. Fragment, 14 grammes. By exchange with Ward and Howell.

105. CRAB ORCHARD MOUNTAINS, near Rockwood, Tenn. Found in March, 1887. Two slabs, 39.8 and 34 grammes. Gift of Ward and Howell.
106. LINN COUNTY, IOWA. Fell February 25, 1847. Fragment, 23.7 grammes. By exchange with G. F. Kunz.
107. TANEY COUNTY, Mo. Stony iron. Fragment, 34 grammes. Gift of G. F. Kunz.
103. MISSOURI. Undescribed iron. Slab, 245 grammes. By exchange with G. F. Kunz. Obtained by Kunz from Professor Potter, of Saint Louis.
109. FAYETTE COUNTY, TEX. Stony iron, found about 1878. Two fragments, 110 and 137 grammes. Gift of Ward and Howell.
34. ALBUQUERQUE, N. MEX. Iron. Slab, 56 grammes. Gift of Richard Pearce. (Glorieta?)
110. SAN EMIGDIO MOUNTAINS, San Bernardino County, Cal. 119 grammes in small fragments. Given by Thomas Price to G. P. Merrill, of the U. S. National Museum.
111. INDEPENDENCE COUNTY, ARK. Iron. Slab, 309 grammes. By exchange with the K. K. Hofmineralien-Cabinet, Vienna.
112. ANGRA DOS REIS, BRAZIL. Fell January, 1879. Fragment, 8.6 grammes. By exchange with the National Museum at Rio de Janeiro.
113. ITAPICURU MIRIM, BRAZIL. Fell March, 1879. Fragment, 9.7 grammes. By exchange with the National Museum at Rio de Janeiro.
114. MACAYO, RIO GRANDE DO NORTE, BRAZIL. Fell November 11, 1836. Fragment, 68.5 grammes. By exchange with the National Museum at Rio de Janeiro.
115. PROVINCE OF MINAS GERAES, BRAZIL. Fragment, 10.9 grammes. By exchange with the National Museum at Rio de Janeiro.
116. CHARSONVILLE, FRANCE. Fell November 23, 1810. 54 grammes. By exchange with Baron Braun.
117. ENSISHEIM, ELSASS, GERMANY. Fell November 16, 1492. Fragment, 3.5 grammes. By exchange with J. R. Gregory.
118. STEINBACH, ERZGEBIRGE. Fragment, 2 grammes. By exchange with the K. K. Hofmineralien-Cabinet at Vienna.
119. BITBURG, PRUSSIA. Fragment, 22 grammes. By exchange with J. R. Gregory.
120. HAINHOLZ, WESTPHALIA. Fragment, 7.5 grammes. By exchange with Baron Braun.
88. STANNERN, MORAVIA. Fell May 22, 1808. Nearly complete stone, 33 grammes. By exchange with the K. K. Hofmineralien-Cabinet at Vienna.
121. PAWLOWGRAD, EKATERINOSLAV, RUSSIA. Fell May 19, 1826. Fragment, 18 grammes. By exchange with J. R. Gregory.
122. BRAHIN, MINSK, RUSSIA. Fragment, 14 grammes. By exchange with J. R. Gregory.
123. TABORSKOJE SELO, RUSSIA. Fell August 30, 1887. 161 grammes. By exchange with J. v. Siemaschko.
124. MIKENSKOI, GROSNIJA, CAUCASUS, RUSSIA. Fell June 28, 1861. Fragment, 4.5 grammes. By exchange with Baron Braun.
125. DJATI PENGILON, JAVA. Fell March 19, 1884. 469 grammes. Gift of the Government of the Netherlands East Indies.
126. YARRA YARRA RIVER, AUSTRALIA (Cranbourne?). Fragment, 15.9 grammes. By exchange with J. R. Gregory.
127. FUKUTOMI, KINEJIMA, HIZEN, JAPAN. Fell March 19, 1882. Fragment, 9.7 grammes. Gift of Educational Museum at Tokio.
128. MAËMÉ, HISLUGARI, SATSUMA, JAPAN. Fell November 10, 1886. Gift of Educational Museum at Tokio.



## SUPPLEMENT.

## THE SHEPARD COLLECTION OF METEORITES.

Deposited in the National Museum by Prof. Charles Upham Shepard, jr.

## I.—METEORIC IRONS.

No.	Date of find.	Where found.	Weight.
			<i>Grammes.</i>
1	1400	Elbogen, Bohemia .....	4.45
2	1600	La Caille, Var, France .....	1.48
3	1749	Krasnojarsk, Jeniseisk, Siberia. (The Pallas meteorite)....	327.
4	1784	Xiquipilco, Toluca, Mexico .....	688.
5	1788	Tucuman, Otumpa, Argentine Republic .....	23.8
6	1792	Zacatecas, Mexico .....	175.3
7	1793	Cape of Good Hope, Africa.....	182.5
8	1797	Prambanan, Java .....	2.3
9	1804	Misteca, Oaxaca, Mexico .....	18.5
10	1804	Durango, Mexico .....	45.43
11	1807	Bitburg, Prussia .....	19.
12	1810	Brabin, Minsk, Russia.....	5.13
13	1810	Rasgata, Tocavita, New Granada .....	15.
14	1814	Lenarto, Scharosch, Hungary .....	17.52
15	1814	Red River, Texas .....	63.7
16	1819	Burlington, Otsego County, N. Y .....	1,528.3
17	1829	Bohumilitz, Prachin, Bohemia.....	0.95
18	1834	Scriba, Oswego County, N. Y .....	61.33
19	.....	Fell July 31 or August 1, 1835, at Charlotte, Dickson County, N. C .....	2.70
20	1836	River Brazos, Wichita County, Tex.....	212.40
21	1837	Bonanza, Chihuahua, Mexico.....	238.6
22	1839	Putnam County, Ga .....	68.55
23	1839	Asheville, Buncombe County, N. C .....	2.95
24	1840	Cosby's Creek, Cocke County, Tenn .....	69.16
25	1842	Babb's Mill, Greene County, Tenn.....	20.63
26	1844	Arva, Szlanicza, Hungary .....	123.50
27	1844	Carthage, Smith County, Tenn .....	48.1
28	1845	Lockport, Niagara County, N. Y .....	33.2
29	1846	Tula, Netschaëvo, Russia.....	61.95
30	1846	Tucson, Ariz. (The Carleton iron).....	36.84
31	1847	Murfreesboro, Rutherford County, Tenn .....	5.88
32	1847	Chester, S. C .....	115.45
33	1847	Rittersgrün, Saxony .....	65.45
34	1847	Seeläsgen, Brandenburg, Prussia.....	111.6
35	.....	Fell July 14, 1847, Braunau, Hauptmannsdorf, Bohemia....	14.5
36	1850	Ruff's Mountain, Lexington County, S. C .....	5,461
37	1850	Salt River, Kentucky .....	51.56
38	1850	Schwetz, Prussia.....	10.55
39	1851	Seneca Falls, Cayuga County, N. Y .....	80.2
40	1853	Lion River, Namaqualand, South Africa.....	20.85
41	1853	Tazewell, Claiborne County, Tenn .....	1,943.5
42	1853	Union County, Ga .....	124.5
43	1854	Jewell Hill, Madison County, N. C .....	31.85
44	1854	Oktibbeha County, Miss .....	1.89
45	1854	Emmetsburg, Md .....	5.5
46	1854	Madoc, Ontario, Canada .....	19.65
47	1854	Werchne Udinsk, Russia .....	36.30
48	1854	Cranbourne, Australia .....	10.6
49	1854	Sarepta, Saratov, Russia .....	3.3
50	1855	Sancha Estate, Coahuila, Mexico.....	183.7
51	1856	Marshall County, Ky .....	68.23
52	1856	Denton County, Tex.....	7.97

## THE SHEPARD COLLECTION OF METEORITES—Continued.

## I.—METEORIC IRONS—Continued.

No.	Date of find.	Where found.	Weights.
			<i>Grammes.</i>
53	1856	Orange River, South Africa .....	21.41
54	1856	Hainholz, Minden, Westphalia .....	12.15
55	1856	Imilac, Atacama, Bolivia .....	36.65
56	1858	Wayne County, Ohio .....	2.86
57	1858	Trenton, Washington County, Wis .....	91.46
58	1860	Coopertown, Robertson County, Tenn .....	327.83
59	1860	Nelson County, Ky .....	58.3
60	1860	Lagrange, Oldham County, Ky .....	2,002.
61	1861	Breitenbach, Saxony .....	16.8
62	1862	Vaca Muerta, Sierra de Chaco, Atacama, Bolivia .....	27.63
63	.....	Fell in 1862, Victoria West, Cape Colony .....	2.15
64	1863	Southeast Missouri .....	5.6
65	1866	Chili .....	4.76
66	1866	Bear Creek, Aeriotospos, Colo .....	307.08
67	1867	Auburn, Macon County, Ala .....	228.15
68	1867	Losttown, Cherokee County, Ga .....	75.4
69	1867) 1868)	Mejillones, Atacama, South America .....	29.8
70	1869	Near Staunton, Augusta County, Va .....	1,662.
71	1872	Nenntmannsdorf, Saxony .....	15.15
72	1873	Chulafinnee, Cleburne County, Ala .....	54.
73	1873	Eisenberg, Altenburg, Saxony .....	9.7
74	1874	Butler, Bates County, Mo .....	391.
75	1875	Santa Catarina, Morro do Rocio, Brazil .....	253.9
76	1877	Casey County, Ky .....	3.30
77	1879	Dalton, Whitfield County, Ga .....	50,917.
78	1879	Lick Cr. ek, Davidson County, N. C .....	9.72
79	.....	Fell May 10, 1879, Estherville, Emmet County, Iowa .....	3,575.
80	1879	Campo del Pucara, Catamarca, New Granada .....	0.92
81	1879	Ivanpah, San Bernardino County, Cal .....	11.75
82	1880	Lexington, S. C .....	3,992.
83	1881	"The Smithsonian iron" .....	88.3
84	1883	Grand Rapids, Mich .....	34.5
85	1884	Glorieta Mountain, Santa Fé County, N. Mex .....	853.4
86	.....	East Tennessee. (The iron of the Philadelphia Academy of Natural Sciences) .....	260.0
87	1886	Bacubirito, Sinaloa, Mexico .....	171.4
88	.....	Sevier County, Tenn .....	Turnings .....
89	.....	Trinity County, Cal .....	22.55
90	.....	Chemnitz, Hungary .....	75.27
91	.....	From burned museum at Baltimore .....	2.73
92	.....	"The Abert iron" .....	11.3

## II.—TERRESTRIAL IRONS. (Formerly supposed to be meteoric.)

1	1848) 1850)	Niakornak, Greenland .....	5.7
2	1870	Ovifak, Greenland .....	18.97

## THE SHEPARD COLLECTION OF METEORITES—Continued.

## III.—METEORIC STONES.

No.	Date of fall.	Place of fall.	Weight.
			<i>Grammes.</i>
1	Nov. 16, 1492	Ensisheim, Elsass, Germany .....	4.3
2	July 3, 1753	Tabor, Bohemia .....	2.45
3	July, 1766	Albareto, Modena, Italy .....	1.00
4	July 24, 1790	Barbotan, Landes, France .....	28.7
5	June 16, 1794	Siena, Italy .....	6.75
6	Dec. 13, 1795	Wold Cottage, Thwing, Yorkshire, England .....	13.02
7	Mar. 12, 1798	Salles, Villefranche, France .....	2.0
8	Dec. 19, 1798	Krakhut, Benares, India .....	7.32
9	Apr. 26, 1803	L'Aigle, Orne, France .....	11.35
10	Mar. 15, 1806	Alais, Garde, France .....	0.60
11	Dec. 14, 1807	Weston, Conn .....	74.37
12	May 22, 1808	Stannern, Moravia .....	25.70
13	Aug. 1810	Mooresfort, Tipperary, Ireland .....	1.00
14	Nov. 23, 1810	Charsonville, near Orleans, France .....	3.77
15	Mar. 12, 1811	Kuleschowka, Poltava, Russia .....	5.95
16	April 15, 1812	Erxleben, Prussia .....	30.60
17	Aug. 5, 1812	Chantonnay, Vendée, France .....	5.1
18	Feb. 15, 1814	Bachmut, Ekaterinoslav, Russia .....	8.6
19	June 13, 1819	Jonzac, Charente-Inférieure, France .....	0.17
20	July 12, 1820	Lixna, Witebsk, Russia .....	1.19
21	June 15, 1821	Juvinas, Ardèche, France .....	39.5
22	June 3, 1822	Angers, Maine-et-Loire, France .....	0.72
23	Nov. 30, 1822	Allahahad, Futtehpur, India .....	2.22
24	Jan. 15, 1824	Renazzo, Ferrara, Italy .....	7.20
25	1825	Mung, Loiret, France .....	3.27
26	Feb. 10, 1825	Nanjemoy, Md .....	31.22
27	Sept. 14, 1825	Honolulu, Hawaiian Islands .....	1.35
28	May 19, 1826	Pawlograd, Ekaterinoslav, Russia .....	3.11
29	May 9, 1827	Drake Creek, Nashville, Sumner County, Tenn .....	4.18
30	June 4, 1828	Richmond, Va .....	3.69
31	May 8, 1829	Forsyth, Ga .....	9.50
32	Aug. 14, 1829	Deal, N. J .....	4.19
33	July 18, 1831	Vouillé, near Poitiers, France .....	14.57
34	June 6, 1838	Chandakapur, Berar, India .....	1.05
35	Oct. 13, 1838	Cold Bokkeveldt, Cape Colony .....	9.72
36	Feb. 13, 1839	Little Piney, Pulaski County, Mo .....	75.44
37	June 12, 1841	Château Renard, Loiret, France .....	3.74
38	Apr. 26, 1842	Milena, Warasdin, Croatia .....	46.25
39	June 4, 1842	Aumières, Lozère, France .....	(*)
40	Mar. 25, 1843	Bishopville, S. C .....	1,090.4
41	June 2, 1843	Utrecht, Holland .....	8.8
42	Found in 1846	Assam, India .....	6.75
43	May 8, 1846	Montemilone, Macerata, Italy .....	0.73
44	Feb. 25, 1847	Hartford, Linn County, Iowa .....	1,602.35
45	May 20, 1848	Castine, Me .....	(*)
46	Dec. 27, 1848	Ski, Amt Akershuus, Norway .....	1.00
47	Oct. 31, 1849	Cabarrus County, N. C .....	343.6
48	Jan. 23, 1852	Nellore, Madras, India .....	2.81
49	Aug. 5, 1855	Petersburg, Lincoln County, Tenn .....	30.7
50	Feb. 28, 1857	Parnallee, Madras, India .....	331.48
51	Apr. 15, 1857	Kaba, Hungary .....	0.20
52	Oct. 1, 1857	Les Ormes, Yonne, France .....	0.70
53	Dec. 27, 1857	Pegu (Quenggouk), British Burmah .....	19.65
54	Dec. 9, 1858	Ausson, Haute Garonne, France .....	20.1
55	Dec. 24, 1858	Molina, Murcia, Spain .....	3.67
56	Mar. 28, 1859	Harrison County, Ind .....	5.64
57	May 1, 1860	New Concord, Guernsey County, Ohio .....	3,311.87
58	July 14, 1860	Dhurmsala, Punjab, India .....	259.2
59	May 12, 1861	Butsura, India .....	7.83

\* Fragment.

## THE SHEPARD COLLECTION OF METEORITES—Continued.

## III.—METEORIC STONES—Continued.

No.	Date of fall.	Place of fall.	Weight.
			<i>Grammes.</i>
60	Aug. 8, 1863	Pillistifer, Livland, Russia .....	2.6
61	Dec. 7, 1863	Tourinnes-la-Grosse, Tirlemont, Belgium .....	9.04
62	Found 1863-'4	Tomhannock Creek, Rensselaer County, N. Y. ....	8.74
63	May 13, 1864	Orgueil, Tarn-et-Garonne, France .....	9.62
64	Jan. 19, 1865	Supuhee, Sidowra, Gorruckpur, India .....	4.3
65	Mar. 26, 1865	Claywater, Vernon County, Wis. ....	9.35
66	May 30, 1866	St. Mesmin, Aube, France .....	1.59
67	June 9, 1866	Knyahinya, Hungary .....	32.83
68	Jan. 30, 1868	Pultusk, Poland .....	304.76
69	Feb. 29, 1868	Motto-di-Conti, Casale, Italy .....	1.53
70	Mar. 20, 1868	Daniel's Kuil, Griqualand, South Africa .....	4.6
71	Dec. 5, 1868	Frankfort, Franklin County, Ala. ....	4.7
72	Jan. 1, 1869	Hessle, near Upsala, Sweden .....	259.8
73	May 22, 1869	Cléguerec, Morbihan, France .....	52.65
74	Sept. 19, 1869	Tjabé-Padang, Java .....	29.1
75	Aug. 18, 1870	Cabeza de Muyo, Murcia, Spain .....	13.7
76	May 21, 1871	Searsmont, Waldo County, Me. ....	62.5
77	Dec. 10, 1871	Bandong, Java .....	50.87
78	Found 1872	Waconda, Mitchell County, Kans. ....	996.55
79	Aug. 31, 1872	Orvinio, Rome, Italy .....	0.12
80	Sept. 23, 1873	Khairpur, India .....	26.75
81	May 14, 1874	Near Castalia, Nash County, N. C. ....	0.76
82	Nov. 26, 1874	Kerilis, Côtes-du-Nord, France .....	2.70
83	Feb. 12, 1875	West Liberty, Iowa County, Iowa .....	3, 185.9
84	June 23, 1876	Ställdalen, Nya Kopparberg, Sweden .....	151.7
85	Dec. 21, 1876	Rochester, Fulton County, Ind. ....	48.27
86	Jan. 3, 1877	Warrenton, Warren County, Mo. ....	27.25
87	Jan. 23, 1877	Cynthiana, Harrison County, Ky. ....	1.77
88	Oct. 13, 1877	Soko-Banja, Servia .....	15.98
89	July 15, 1878	Tieschitz, Moravia .....	27.00
90	Nov. 20, 1878	Rakovka, Tula, Russia .....	23.50
91	Jan. 31, 1879	La Bécasse, Indre, France .....	5.00
92	Aug. 17, 1879	Tamatlan, Jalisco, Mexico .....	511.00
93	Feb. 3, 1882	Mocs (Visa), Kolos, Hungary .....	17.85
94	Aug. 2, 1882	Pavlovka, Saratov, Russia .....	5.61
95	Feb. 16, 1883	Alfianello, Brescia, Italy .....	29.54

## IV.—PSEUDO METEORITES.

1. Ivan-Oedenburg, Hungary .....	0.94
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## RECAPITULATION, SHEPARD COLLECTION.

Irons, meteoric .....	92
Irons, terrestrial .....	2
Stones .....	95
Pseudo meteorites .....	1
	190

## ADDENDA, SHEPARD COLLECTION.

*Bringing the catalogue down to October 20, 1888.*

IRON CREEK, NORTH SASKATCHEWAN, BRITISH NORTH AMERICA.	Iron, 125 grammes.
SMITHLAND, KY.	Iron, 12.9 grammes.
ALLEN COUNTY, KY.	Iron. 713 grammes.
INDEPENDENCE COUNTY, ARK.	Iron, 20 grammes.

- MAVERICK COUNTY, TEX. Iron, 116 grammes.  
TUCSON, ARIZONA. The signet iron. 84.5 grammes.  
TOLUCA, MEXICO. Iron. 17,800 grammes.  
TARAPACÁ DESERT (HEMALGA), PERU. Iron, 84 grammes.  
SANTA CATARINA, BRAZIL (altered). Iron. 7,200 grammes.  
NEWSTEAD, SCOTLAND. Iron, 51 grammes.  
POHLITZ, REUSS, GERMANY. Stone. Fell October 13, 1819. 0.16 gramme.  
EICHSTADT, BAVARIA. Stone. Fell February 19, 1785. 1 gramme.  
OBERNKIRCHEN, GERMANY. Iron. 23.1 grammes.  
AGRAM, CROATIA. Iron. Fell May 26, 1751. 0.74 gramme.  
MAUERKIRCHEN, AUSTRIA. Stone. Fell November 20, 1788. 0.5 gramme.  
MEZO MADARASZ, TRANSYLVANIA. Stone. Fell September 4, 1852. 86.8 grammes.  
ISLAND OF OESEL, BALTIC SEA. Stone. Fell May 11, 1855. 4 grammes.  
TENNASSILM, ESTHLAND, RUSSIA. Stone. Fell June 28, 1872. 1 gramme.  
TIMOCHIN, RUSSIA. Stone. Fell March 25, 1807. 15 grammes.  
GROSS LIEBENTHAL, NEAR ODESSA, RUSSIA. Stone. Fell November 19, 1881. 8 grammes.  
ASSISI, ITALY. Stone. Fell May 24, 1886. 29 grammes.  
LUCIGNANO, SIENA, ITALY. Stone. 3.7 grammes.  
TRENZANO, BRESCIA, ITALY. Stone. Fell November 12, 1856. 3.8 grammes.  
GIRGENTI, SICILY. Stone. Fell February 10, 1853. 1.5 grammes.  
NEJED, ARABIA. Iron. Fell 1865. 37 grammes.  
SHYTAL, INDIA. Stone. Fell August 11, 1863. 1.32 grammes.  
CRONSTADT, ORANGE RIVER FREE STATE, AFRICA. Stone. Fell November 19, 1877. 12.5 grammes.  
YARRA YARRA RIVER, AUSTRALIA. Iron. 21 grammes. (Cranbourne?)