

A  
SYSTEM  
OF  
MINERALOGY.

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DESCRIPTIVE MINERALOGY,  
COMPRISING THE  
MOST RECENT DISCOVERIES.

BY

JAMES DWIGHT DANA,

SILLIMAN PROFESSOR OF GEOLOGY AND MINERALOGY IN YALE COLLEGE. AUTHOR OF A MANUAL OF GEOLOGY; OF  
REPORTS OF WILKES'S U. S. EXPLORING EXPEDITION ON GEOLOGY; ON ZOOPHYTES; AND ON  
CRUSTACEA, ETC.

AIDED BY

GEORGE JARVIS BRUSH,

PROFESSOR OF MINERALOGY AND METALLURGY IN THE SHEFFIELD SCIENTIFIC SCHOOL OF YALE COLLEGE.

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*"Hæc studia nobiscum peregrinantur....rusticantur."*

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FIFTH EDITION.

REWRITTEN AND ENLARGED, AND ILLUSTRATED WITH UPWARDS OF SIX HUNDRED WOODCUTS.

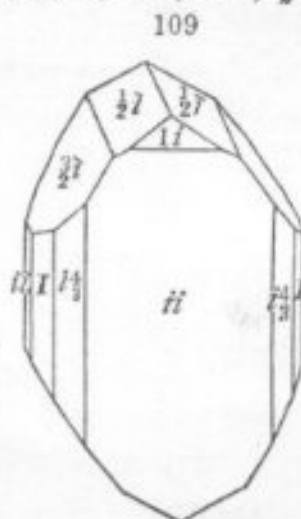
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1868.

**114. FREIESLEBENITE.** Mine d'antimoine grise tenant argent (fr. Himmelsfürst) de Lisle, Descr. de Min., 35, 1773, Crist., iii. 54, 1783. Dunkles Weissgültigerz (id. loc., known since 1720) *Klapr.*, Beitr., i. 173, 1795. Schilf-Glaserz *Freiesleben*, Geogn. Arb., vi. 97, 1817. Antimonial Sulphuret of Silver, Sulphuret of Silver and Antimony. Argent sulfuré antimonifère et cuprifère *Levy*, Descr. Min. Heuland, 1838. Donacargyrite *Chapm.*, Min., 128, 1843. Freieslebenit *Haid.*, 569, 1845.

Monoclinic.  $C=87^{\circ} 46'$ ,  $I \wedge I=119^{\circ} 12'$ ,  $O \wedge 1-i=137^{\circ} 10'$  (B. & M.);  $a : b : c=1.5802 : 1 : 1.7032$ . Observed planes:  $O$ ; vertical,  $I$ ,  $i-i$ ,  $i-i$ ,  $i-\frac{4}{3}$ ,  $i-3$ ,  $i-\frac{4}{3}$ ,  $i-\frac{5}{3}$ ,  $i-2$ ; domes,  $1-i$ ,  $\frac{1}{2}i$ ,  $1-i$ ,  $\frac{2}{3}i$ ,  $2-i$ ; octahedral,  $\frac{1}{2}$ ,  $1$ ,  $1-4$ ,  $1-2$ ,  $\frac{2}{3}3$ .

$O \wedge 1-i=123^{\circ} 55'$	$1-2 \wedge 1-2$ , front, $=152^{\circ} 36'$
$O \wedge \frac{1}{2}i=156 8$	$i-\frac{4}{3} \wedge i-\frac{4}{3}$ " $=132 48$
$O \wedge 2-i=118 21$	$i-3 \wedge i-3$ " $=157 54$
$1 \wedge 1$ , front, $=128 2$	$1-i \wedge 1-i$ , top, $=94 20$
$1-4 \wedge 1-4$ " $=166 6$	



Prisms longitudinally striated. Cleavage:  $I$  perfect.  $H.=2-2.5$ .  $G.=6-6.4$ ; 6.194, Hausmann; 6.23, fr. Przibram, v. Payr. Lustre metallic. Color and streak light steel-gray, inclining to silver-white, also blackish lead-gray. Yields easily to the knife, and is rather brittle. Fracture subconchoidal—uneven.

Comp.—5 (Pb, Ag) S + 2 Sb<sup>2</sup> S<sup>3</sup> (fr. v. Payr's anal.)=, if Ag : Pb=3 : 4, Sulphur 18.6, antimony 25.9, lead 31.2, silver 24.3=100. Analyses: 1, 2, Wöhler (*Pogg.*, xlv. 146); 3, Escosura (*Rev. Minera*, vi. 358, *Ann. d. M.*, V. viii. 495); 4, v. Payr (*Jahrb. Min.* 1860, 579):

	S	Sb	Pb	Ag	Fe	Cu
1.	18.77	27.72	30.00	22.18	0.11	1.62=100 W.
2.	18.72	27.05	30.08	23.78	—	=99.60 W.
3. Spain	17.60	26.83	31.90	22.45	—	=98.78 Escosura.
4. Przibram	18.41	27.11	30.77	23.08	0.63	=100 Payr.

Pisani refers here the massive dark *weissgültigerz* analyzed by Klaproth, who obtained (l. c.) S 22.00, Sb 21.50, Pb 41.00, Ag 9.25, Fe 1.75, Al 1.00, Si 0.75=97.25, considering part of the silver as here replaced by lead.

**Pyr.**—In the open tube gives sulphurous and antimonial fumes, the latter condensing as a white sublimate. B.B. on charcoal fuses easily, giving a coating, on the outer edge white, from antimonous acid, and near the assay yellow, from oxyd of lead; continued blowing leaves a globule of silver.

**Obs.**—With argentite, siderite, and galenite, in the Himmelsfürst mine, at Freiberg in Saxony, and Kapnik in Transylvania; at Ratiborwitz, the ore of which locality contains bismuth, according to Zincken; at Przibram in crystals, often twins, and 2 to 6 lines long; at Felsobanya; at Hiendelencina in Spain, with argentite, red silver, siderite, galenite, etc.

The crystals from Himmelsfürst are *triclinic*, according to Breithaupt (*B. H. Ztg.*; xxv. 189). Chapman took his name *donacargyrite* from the British Museum, knowing nothing of its origin. Such a name ought not to displace *freieslebenite*.

**115. PYROSTILPNITE.** Feuerblende *Breith.*, Char., 285, 333, 1832. Fireblende *Dana*, Min., 543, 1850. Pyrostilpnite, *Dana*.

Monoclinic. In delicate crystals grouped like stilbite. Observed planes,  $I$ ,  $i-i$ ,  $1-2$ ,  $1-i$ ,  $2-i$ , B. & M.

