THE METEORITICAL BULLETIN

THE PERMANENT COMMISSION ON METEORITES OF THE INTERNATIONAL GEOLOGICAL CONGRESS

No 5 SEPTEMBER, 1957 Moscow, USSR

## 1. DISCOVERY OF METEORITIC AND METEORIC DUST IN SOIL FROM THE PLACE OF THE TUNGUSKA METEORITE FALL.

In the summer of 1957, while studying samples of soil brought by L.A.Kulik's expeditions in the years 1929-1939 from the place of the Tunguska Meteorite (U.S.S.R.) fall, K.P.Yavnel', of the Committee on Meteorites, U.S.S.R. Academy of Sciences, discovered particles of meteoritic and meteoric dust.

The particles of the meteoritic dust are small laminae with sharp corners, chips or pieces measuring a fraction of a millimeter or more, and are the result of the crushing of the meteorite during its fall (explosion). Spectrografic and microchemical analyses showed iron with a 7 to 10 per cent nickel content and approximately 0.7 per cent cobalt. The composition and presence of some dust particles clearly shaped as little columns promt the suppostition that the Tunguska Meteorite is of the iron, octahedrite class.

The particles of dust are regular black globules (probably magnetite) 0.03 to 0.06 mm in diameter. So far only nine globules have been discovered and since there are very few of them, analyses have not been made. The globules are the result of melting of meteoritic matter during passage through the earth's atmosphere, and were part of the smoke-train of fire-ball that settled on the earth's surface and became mixed with the soil.

The study of the samples of the soil is being continued.

## 2. T W O  N E W  A M E R I C A N  M E T E O R I T E S

1.

Name: M A Y D A Y.

The place of discovery:
Latitude 39° 28' 28'' N., Longitude 96° 55.9'W. near a pond on a farm about two miles south-west of Mayday, Riley County, Kansas, USA.

Date of discovery: F O U N D, July 1955, identified July 10, 1956.

Class and type: S T O N E, black chondrite.

The number of separate specimens: 2.(However, it is the opinion of Mr.W.S.Houston and E.P.Henderson that it is a fragment of a larger mass that was broken off before it fell). It measures 10'' x 8'' x 6''. A fragment 2" x 1.5" x 1" was also found.

Total weight: After some slices were removed the known weight is 6,905 grams.

The circumstances of the discovery:
Sometime in July 1955, when Mr.Roberts was visiting his farm pond which lies a half mile back of the house he noticed a stone sticking out of the ground just at the top of the bank. Curious, because it seemed a different color from the local rocks, he dug it out. It wasn't especially heavy. The original weight was taken but is now lost, but at present, after cutting some 6,906 grams remain. It is obviously a fragment off a larger piece, broken on impact, or at any rate near enough to the ground so that no secondary crust formed. Only about a third of the surface shows the original crust.

The chondrite has also obviously been in the ground for a long time. The broken surface is the same reddish color as the crust area, and the crust has no black on it at all.

Main mass is in the Kansas State College, Manhatten, Kansas. About 5 grams are in the U.S. National Museum.

Source: 1. "The Great Plains Observer", editor W.S.Houston, volum 1, number 5, dated October 1956, and 2. A letter written by E.P.Henderson to E.L.Krinov dated August 1, 1957.

2.

Name: L A V I L L A.

The place of discovery:

Latitude 26° 16.3' N., Longitude 97° 54.1'W., 2.3 miles south-east of La Villa, Hidalgo County, Texas, USA.

Date of recovery: F O U N D, April, 1956, identified March 1957.

Class and type: S T O N E, Chondrite.

The number of separate specimens: 1.

Total weight: 43.5 pounds (19.8 kilograms).

The circumstances of the discovery:

The meteorite was found in the course of farm work by a Mexican, Alfonso Robles, probably in early April 1956. It was carried to the end of the row and thrown out, but later recognized, apparently partly thru its weight, by Mr. Elmo Wade, the farm manager. He took it to his house. The stone is quite old and weathered. One side has a definite though not thick deposit of limestone. It is rounded and ellipsoidal in shape, with no outstanding features or pittings. The original

crust is hardly evident, only oxidation. There is one fairly plane surface, indicating that the meteorite possibly broke along this side and that a somewhat smaller piece should be in the region.

The main mass of the meteorite is in the Pan American College at Edinburg, Texas, USA.

Sources: 1. A letter written by Oscar E.Monnig to E.P.Henderson dated May 11, 1957, and 2. A letter written by E.P.Henderson to E.L.Krinov dated August 1, 1957.

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THE LIST No 1.

of the meteorites, which are not included in the Catalogue of meteorites of Prior-Hey, 1953.

| No | Name | The place of discovery | Date of discovery | Class and type | The number of separ. specim. | Total weight, grams |
|---|---|---|---|---|---|---|
| 1 | ANKOBER | Near Ankober, northest of Addis Abeba, at Basso, in the zone of Boledo, Ethiopia, Africa. $\varphi$ =10°N, $\lambda$ = 40°E. | FALL, July 7 1942 at 11:00 a.m. | STONE, chondrite | 1 | 6500 |
| 2 | BONITA SPRINGS | Bonita Springs, Lee County, Florida, USA $\varphi$ = 26°16'N., $\lambda$ = 81°45'W. | FOUND, Summer 1938 | STONE, chondrite | 1 | 41800 |

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|---|---|---|---|---|---|
| 3 | BUNUNU +) | 20 miles south of Bunuunu and 50 miles south of Bauché, North Central Nigeria $\varphi$ =10°N., $\lambda$ = 10°E. a. | FELL, STONE, Spring achondrite 1942 about 10:00 a.m. | 1 | 357 |
| 4 | CLOVER SPRINGS | About 13 miles southwest of Glover Springs, Gila County, Arizona, USA; $\varphi$ = 34°27'N., $\lambda$ = 111°22'W. | FOUND, STONY. unknown IRON, mesosiderite | ? | 7700 |
| 5 | GIROUX +) | 3 miles northeast of Girous, Manitoba, Canada; $\varphi$ =49 60'N., $\lambda$ =96°37'W. | FOUND, STONY- 1953 IRON, pallasite | 1 | 4725 |
| 6 | KAUFMAN | About four or five miles west of Kaufman, Kaufman County, Texas, USA; $\varphi$ =32°35'N., $\lambda$ = 96°25'W. | FOUND, STONE, about chondrite 1893 black | 1 | 23000 |
| 7 | SAINT PETER | St. Peter, Graham County, Kansas, USA $\varphi$ = 39°24'N., $\lambda$ = 100°02'W. | FOUND, STONE, unknown chondrite | ? | ? |
| 8 | SUCCESS | Success, Clay County, Arkansas, USA $\varphi$ =36°29'N., $\lambda$ =98°40'W. | FALL, STONE, April chondrite 18, 1924; between 3:00 and 4:00 a.m. | 1 | 3500 |

R e m a r k: +) Meteorites included in Leonard's Catalogue for 1956.

Information on the meteorites in List No. 1 was received by E.L.Krinov in a letter from E.P.Henderson dated August 1, 1957.

In future a list of the newly discovered meteorites not mentioned in Prior-Hey's Catalogue will be published regularly.

E.L. K r i n o v,
Vice-President of the Permanent Commission on Meteorites of the International Geological Congress.

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