Nejed: An Arabian Meteorite

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the specimens of Megalocnus might have been contained in this box of fossils from Honduras, or they may have come from some locality not in Cuba.

The only evidence which seems to contradict this expression of doubt is that given by de la Torre* in his 'Observaciones Geológicas y Paleontológicas en la región central de la Isla (Cuba)." In this article additional localities, the vicinity of Cárdenas and between Santo Domingo and Sagua, are recorded. I am not able to express an opinion as to the correctness of these localities or on Torre's ability to determine fossil vertebrates. I am inclined to doubt because there has been so much error regarding these fossils concerning which we have subsequently been able to procure definite data.

The question which I wish here to bring to the attention of vertebrate paleontologists is: Are vertebrate fossils of the genus Megalocnus found in Central America, especially in Honduras?

A note may be added upon the question of the priority of the name Megalocnus Leidy, and Myomorphus Pocel. The note by Leidy was published in the Proceedings of the Academy of Natural Sciences of Philadelphia, Volume XX., pages 179–180. The date given at the bottom of the page is June–July, 1868. The article by Pocel was published in the Comptes Rendus de l'Académie des Sciences, Paris, Vol. LXVII., for the second half, July to December, 1868, pp. 665–668. This is the account of the proceedings of the session of Monday, September 28, 1868. Apparently Leidy's name antedates that of Pocel by several months.

The recent mammalian fauna of Cuba consists of only two genera, a rodent, Capromys, which possesses species in several other West Indian Islands. It is a peculiar genus, having its nearest relatives in the Octodont rodents of South America. There are no relatives at all on the North American continent. The other genus is a peculiar large insectivore, Solenodon. This animal is entirely different from anything found in any other part of America.

* * * * *

It is most closely related to a genus, which is very different, found in Madagascar. If there had been any Pleistocene connection between North America and Cuba it would have inevitably caused a considerable similarity between the mammalian faunas of the two regions. However, none of the common mammalian types of the continent, such as cats, raccoons, hares, etc., are found in that island.

T. WAYLAND VAUGHAN.

SMITHSONIAN INSTITUTION,

DECEMBER 18, 1901.

THE ENGLISH SPARROW IN NEW MEXICO.

For some time we have known of the presence of this bird at Raton and Las Vegas. I have now for the first time observed it at Albuquerque, the birds being fairly numerous in the immediate vicinity of the railway station.

T. D. A. COCKERELL.

SHORTER ARTICLES.

NEJED: AN ARABIAN METEORITE.

Among a considerable number of important specimens lately added to the Ward-Comooley Collection of Meteorites, now on display at the American Museum of Natural History in New York, is a mass or single bolide of iron from Western Australia called the Yourendegi or Penkaring Rock Meteorite. It is one and one half feet in greatest diameter, and weighs between 300 and 400 pounds. Its companion piece, which is in the Royal Museum of Vienna, weighs 910 kilogrammes (half a ton) and is with Cranbourne, also from Australia, one of the largest two meteorites from the entire Eastern Hemisphere.

But of even more interest is the subject of the present notice: the Nejed Meteorite from Central Arabia. It is a siderite or iron meteorite, whose form is rudely triangular, flattened in its longest diameter, which is about fourteen inches, while its thickness below is eleven inches, and its breadth, or height, about nine inches. Its surface is completely and very handsomely covered with the pittings so frequent in meteorites, whether of iron or of stone. The sharpness of these depressions and the bright-
ness of the iron—with entire absence of weathering—are noticeable features, as strongly indicating the recentness of the fall. Nejed was a meteorite which fell in two masses, one of 131 pounds, the other of 136½ pounds. The former was brought to Europe in 1885, and was sold to the British Museum, where it has since been on display. Mr. Fletcher has given (Mineralogical Magazine, 1887) some interesting points as to its finding. It was brought to London by a Persian agent who delivered it at the Museum, at the same time submitting a letter from his Excellency Hajee Ahmed Khanee Sarteepr, Ex-Governor General of Bunder Abbas, Persian Gulf, and Grand Vizier of Muscat. The letter sent from Bunion, and with the Persian date 14th Di Koodah, 1301, A. H., says:

"In the year 1282, after the death of Mahomed, when Maimou Faisole Ben Sanode was Governor and General-Commander-in-Chief of the Pilgrims, residing in a valley called Yakki, which is situated in Nagedê (Nejed) in Central Arabia, Schiek Kolaph Ben Essah, who then resided in the above-named valley, came to Bushire, Persian Gulf, and brought a large thunderbolt with him for me, and gave me the undermentioned particulars concerning it.

"In the spring of the year 1280, in the valley called Wadêe Banee Kholeed in Nagedê, there occurred a great storm, with thunder and lightning; and during the storm an enormous thunderbolt fell from the heavens accompanied by a dazzling light, similar to a large shooting star, and it sank deep into the earth. During its fall the noise of its descent was terrific. I, Schiek Kolaph Ben Essah, procured possession of it and brought it to you, it being the largest that ever fell in the district of Nagedê. These thunderbolts, as a rule, only weigh two or three pounds, and fall from time to time during tropical storms.

"The above concludes the narrative of Schiek Kolaph Ben Essah. The said Schiek, who brought me this thunderbolt, is still alive and under Turkish Government control at Hoodyyadah near Jeddah. I myself saw in Africa, four years after the above date, a similar one, weighing about 135 pounds, to that which Schiek Kolaph Ben Essah brought to me.

"The Sultan of Zanzibar, Sayde Mazede, obtained possession of it and sent it to Europe, for the purpose of having it converted into weapons, as when melted and made into weapons they were of the most superior kind and temper. For this reason I have forwarded my thunderbolt to London, considering it one of the wonders of the world, and may be a benefit to science."

(Signed)

Hajee Ahmed Khanee Sarteepr,
Ex-Governor of Bunder Abbas, and Grand Vizier of Muscat.

Any reader of the above letter will be impressed with its straightforward narrative, even though the writer gives credence to the popular idea—not at all confined to Arabia—that meteorites fall during thunder storms. His remark that thunderbolts in his country usually weigh only two or three pounds is also of an ingenuous naïveté not incompatible with truthful sincerity. There is a similarity like to that of general human nature—which marks tales of meteorites in every part of the world, the phenomena accompanying their fall, which are also strikingly similar, helping toward this. In this present case the meteorite itself was forthcoming to justify the narrative, and its fellow followed closely after: the piece which the Grand Vizier mentions having seen in Zanzibar and which the Sultan of Zanzibar, at that time also Sultan of Muscat (which district borders close upon that of Nejed), sent also to Europe to have converted into weapons. It reached London, and also went to the British Museum, where, they being already provided, Director Fletcher sent them with this second piece to Mr. James R. Gregory—a celebrated collector of meteorites, who promptly added it by purchase to his collection. From the heirs of Mr. Gregory I a few months ago obtained it, and gave it a place of honor, becoming its uniqueness, in the Ward-Connolly Collection. In view of the fact that Sayde Mazede, the Sultan of Zanzibar, duly received his weapons, and that they were not made from his meteorite, the story
that 'they were of the most superior kind and temper' has a rather amusing sound. It is well known to scientists that meteoric iron quite refuses to yield to successful forging—its grain being too 'short' for a durable cutting edge. The excellency of the weapons returned to the Sultan confirms the suspicion that his messenger pocketed the proceeds of the sale, yet had the grace to visit Sheffield for the swords and similitars. The two masses of Nejed were identical in composition, as they were closely similar in size, weight and general external appearance. When a polished section of this iron is etched with acid or with bromide-water its surface displays excellently the Widmanstätten figures, the straight long beams of Kamacite forming the approximately equilateral triangle pattern according with the octahedral crystallization of the mass.

Mr. Fletcher has analyzed the iron, and has shown its near similarity in composition to the iron of Trenton (Wisconsin), Toluca (Mexico) and Verchne Udinsk (Siberia). The relation of the four irons is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Nejed</th>
<th>Trenton</th>
<th>Toluca</th>
<th>V. Udinsk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>91.04</td>
<td>91.03</td>
<td>90.74</td>
<td>91.05</td>
</tr>
<tr>
<td>Nickel</td>
<td>7.40</td>
<td>7.20</td>
<td>7.78</td>
<td></td>
</tr>
<tr>
<td>Cobalt</td>
<td>0.68</td>
<td>0.53</td>
<td>0.72</td>
<td>8.52</td>
</tr>
<tr>
<td>Copper</td>
<td>trace</td>
<td>trace</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>Phosphorus</td>
<td>0.10</td>
<td>0.14</td>
<td>0.24</td>
<td>trace</td>
</tr>
<tr>
<td>Sulphur</td>
<td>trace</td>
<td>trace</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>Insol. Residue</td>
<td>0.59</td>
<td>0.45</td>
<td>0.34</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>99.79</td>
<td>99.35</td>
<td>99.88</td>
<td>100.15</td>
</tr>
</tbody>
</table>

This close similarity of composition in masses fallen in widely separated parts of our earth, at different dates, and coming perhaps from heavenly bodies infinitely distant from each other in space, is one of the many wonders revealed by these cosmic messengers. Lockyer has also shown that the spectra of the two meteorites, Nejed and Obernkirchen, closely agree as to both the number and the intensity of the lines. The specific gravity of the Nejed was determined by Fletcher at 7.863. Cohen and Brezina both speak of its very slight veränderungszone. This surface decomposition being less than 1 mm. in thickness, together with the general sharpness and brightness of the iron, lends probability to the story of the Arabian that Nejed was seen to fall. Indeed Fletcher says of it in his earliest description, “The mass is thus one of the small group of meteoric irons, numbering at most nine or ten, of which the fall has been actually observed; and of these it is the largest.” But in a later paper he expresses doubt as to the fall having been seen. We at least know that it fell in some quite recent period, and at the point where it was found. And Nejed, attractive in its peculiar history, is also interesting as being like Veramin of Persia (described by the writer in the December number of the American Journal of Science), one of the isolated, outlying meteorites. The great countries of Arabia and of Persia have each received, so far as recorded, but one of these celestial gifts. India, of almost exactly the area of these two countries combined, has the full number of fifty. The density of population in the Indian peninsula has doubtless something to do with the observing of these falls and the preserving of the stones. But this cannot account for the enormous disparity of the meteoric distribution. Nejed remains a grand and unique representative of isolated individuality.

HENRY A. WARD.

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PRECAUTION IN THE USE OF GASOLINE.

In those laboratories where gasoline is in use, it is necessary to observe a certain precaution with regard to the employment of rubber tubing, to which so far as I know, attention has never been directed. This precaution is that tubing which has been in use on burners should not be used afterwards for conducting gases, unless it has been very thoroughly washed out, or left to stand for some time. Serious accidents may result if, for example, a piece of tubing which has been used for some time on a burner, is immediately connected to a gasometer containing oxygen, for transferring that gas to cylinders or flasks for experiments. It would be natural to suppose that in such a case the washing out of the gasoline would be complete enough after one had passed through the tubing a volume of