

to indicate that the point at which the meteor first became luminous would be not much to the south-east of the nebula.

The accounts received are for the most part descriptive of the appearance of the object, which had a brilliant bluish-white head, followed by a tail of considerable length, tapering to a point, and emitting showers of bright sparks. One or two observers note the appearance of brilliant prismatic colours in the part immediately behind the head. Information as to the apparent altitude above the horizon is lacking, but the track on the plate indicates that the meteor would pass a little above the Pleiades. From observers at Blackpool and Fleetwood it appears that the meteor passed a little to the east of the zenith in the former place, and a little to the west at the latter. From this it is deduced that the path of the meteor was approximately N. 5° E., passing slightly east of

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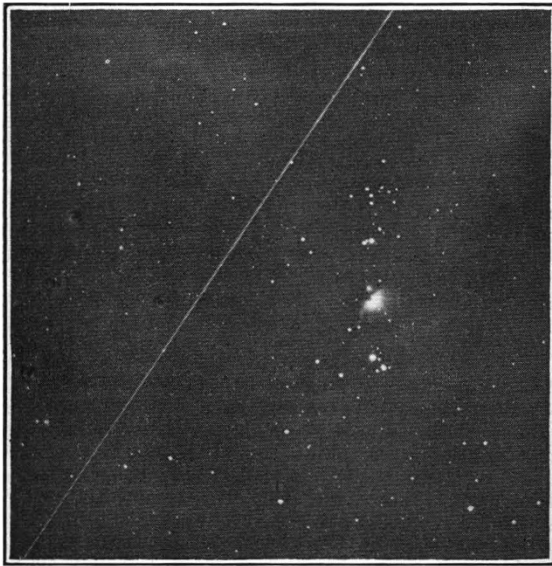


FIG. 1.

Blackpool, a line which produced southwards passes approximately over Chester, Hereford, and Bristol—but no information has been received indicating from how far south the meteor was visible.

Owing to the absence of reliable altitude observations, it is not possible to make an accurate determination of the height above the ground, but, taking more or less probable values, it may have been between 15 miles and 25 miles above Blackpool. If sufficient data come to hand to determine an accurate projection of the track on the earth's surface, measurement of the plate will enable an accurate determination of the height and inclination of the path to be made at points near the beginning of the track.

J. P. ROWLAND, S.J.

Stonyhurst College Observatory,
Nr. Blackburn, March 9.

The Voyage of the *Beagle*

IN the account of the voyage of the *Beagle* in NATURE of Dec. 26, 1931, there is a small point that requires correction. This relates to the first appearance of the title-page "Journal of Researches" in Darwin's publication.

His "Journal and Results" appeared as vol. 3 of FitzRoy's "Narrative" in 1839, as stated in the article, the publisher being Henry Colburn. The demand for

Darwin's volume was immediately in excess of that of its companions, and Colburn therefore brought out in the same year a separate issue of vol. 3. Several preliminary leaves were omitted, and the title under discussion was introduced for the first time. The new title-page reads as follows: "Journal of Researches into the Geology and Natural History of the various countries visited by H.M.S. *Beagle*, under the command of Capt. FitzRoy, R.N., from 1832 to 1836". Some copies were also issued bearing the date 1840.

In Murray's second edition of 1845, the title-page of the second issue of 1839 was retained with slight alterations. 'Geology' and 'Natural History' were reversed in order, perhaps corresponding with a parallel reversal as to their relative degrees of importance in the author's opinion. The title-page in its altered form runs: "Journal of Researches into the Natural History and Geology of the countries visited during the voyage of H.M.S. *Beagle* round the World".

With regard to Colburn's dealings, the following letter from Darwin to his sister, written in Feb. 1842, gives some indication: ". . . Talking of money, I reaped the other day all the profit I shall ever get from my Journal, which consists in paying Mr. Colburn £21 10s. for the copies which I presented to different people:—1337 copies have been sold. This is a comfortable arrangement, is it not?"

Mr. Geoffrey Keynes has helped to elucidate the problems of the issues of the first edition, and I am indebted to him for having shown me a copy of a German translation that appeared in 1844, a year before real popularity was attained in England by Murray's second edition. I find that this publication is mentioned in "Life and Letters", vol. 1, p. 323, where the following quotation is given. Darwin says of the translation:—"I must, with unpardonable vanity, boast that it was at the instigation of Liebig and Humboldt".

N. BARLOW.

Boswells, Wendover.

Ancient Windmills

WITH reference to the letter under the above heading by Mr. H. P. Vowles in NATURE of Feb. 27, p. 317, there is in this library a copy of a Chinese work entitled "Ch'i Ch'i t'u Shuo" ("Record of Strange Machines from the West"), which is probably the source of the Chinese illustrations of machines referred to by Mr. Vowles. The book, which is on applied mechanics, was compiled in 1627 by Wang Cheng, a Christian convert, and contains fifty-four illustrations of machines, windmills, etc., which appear to have been copied directly from the sixteenth century sketch-books of Besson (1569), Ramelli (1588), and Veranzio (1595).

Our copy of the book was actually printed ("newly engraved") in 1829, but it contains prefaces dated 1627 by Wang Cheng, 1629 by one of Wang's pupils, and 1829. Whether these actually represent three separate editions of this particular work is doubtful, but the same illustrations appear in the great Chinese Encyclopædia of 1726 to which Mr. Vowles refers. The interesting point is that Wang Cheng says he compiled the book from information supplied by the Jesuit missionary, John Terrence (1576-1630), who went to China in 1620 and remained there until his death. He was a noted naturalist and mathematician.

The book was exhibited at a meeting of the Newcomen Society in 1925 (*Trans. Newcomen Soc.*, 6, 85).

ALLAN GOMME.

The Patent Office Library,
London, W.C.2, March 5.