

that even the name of Rothamsted is misspelt, both in the text and in the index. That Wolff's work, in English dress, will serve to increase the fame of its author cannot for a moment be doubted, and it is much to be hoped that many of the intelligent readers into whose hands it may fall will be qualified to read the volume critically.

Dog Stories from the "Spectator." With an Introduction by J. St. Loe Strachey. Pp. 264. (London: T. Fisher Unwin, 1895.)

A FEW of these stories record reasonable and well-observed instances of intelligent and deliberate acts of dogs, but most of them are anecdotes in which a modicum of fact is lost in a plenum of anthropomorphic fancies.

When an animal does anything remarkable, the average man (and more so the average woman) conceives that it is guided to its action by a train of *human* reasoning. It must, of course, be granted that dogs often behave with exceptional intelligence, and perform acts with distinct ends in view; we do not, indeed, venture to doubt any of these stories from the correspondence columns of the *Spectator*. But few people seem to be able to separate the "what" from the "why" when writing of animals' actions. Well-authenticated and trustworthy notes on canine intelligence are valuable; but when the narrators essay to explain the dog's motives, they get out of their depth. Here is the gist of a story of this kind: A dog jumped into a carriage at one of the stations on the District Railway; it remained under a seat of the compartment when the train stopped at two stations while the carriage door was opened, but when the door was opened the third time, the dog jumped out and slunk away. There is no evidence whatever that the dog's act was deliberate; and unless there were proofs to the contrary, it must be assumed that it was simply the result of impulse. Yet the anecdote fills nearly two pages of the book, the writer assuming that the dog recognised the station at which it alighted, and concluding with the words: "I suppose that he had been transferred to a new home, which had proved uncongenial, and was slipping away, in fear and trembling, to his old quarters." This is a fair example of the sentimental type of dog story—a type which predominates in the collection before us. A man who knows how to observe in a scientific manner, has no patience with the crude statements and unsupported assertions which make up most of these epistles; he will put his finger on weak points in nearly every page of this book. Many of the facts are the results of coincidences, but here and there among the chaff will be found grains of information of real importance to students of the instincts and habits of animals. The value of the stories is largely discounted from the scientific point of view, by the fact that the writers are often anonymous.

Science Readers. By Vincent T. Murché. Books v. and vi. (London: Macmillan and Co., 1895.)

THESE books are intended to be read by pupils in elementary schools, in conjunction with "object-lessons" given by the teacher. The text has been so carefully prepared, that juvenile readers will have no difficulty in understanding it, while the profuse illustrations add to its attractiveness. The apparently indiscriminate distribution of the subjects of the reading lessons is not one that commends itself to those who regard the orderly statement of facts as the cardinal principle of scientific instruction; but it must be remembered that pupils have to be interested as well as instructed, and Mr. Murché's practical knowledge of what interests the young people for whom he writes, has led him to depart from a strictly scientific arrangement. Putting this aside, however, the books contain a large amount of useful information, which the elementary scholars who read them will easily acquire.

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LETTERS TO THE EDITOR.

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The November Meteors.

FROM various observations it would appear that the Leonids have not presented any unusual activity this year. The weather was tolerably favourable on the nights of November 12, 13 and 14, though there were occasional clouds and showers of rain; meteors were not, however, particularly numerous at any time.

At Bridgwater, on November 12, Mr. Corder watched the sky during the period from 14h. 5m. to 16h. 30m., and observed eighteen meteors, of which three or four only were Leonids.

At Bristol, on November 13, the writer counted ten meteors between 11h. and 13h. 30m., of which two only were Leonids. The sky was, however, partly overcast. At Bridgwater Mr. Corder maintained a look-out between 14h. and 16h. 10m., and recorded twenty-six \checkmark 's, including eleven Leonids with a well-defined radiant at $152^{\circ} + 23^{\circ}$.

At Bristol, on November 14, the writer saw very few meteors, and no Leonids before midnight. The observations were, therefore, relinquished as not likely to be productive.

During the nights following the 12th and 13th, and on the early part of that of the 14th, it is certain, from the above notes, that the Leonids were not numerous visible. If, therefore, the earth passed through a region of the stream much denser than usual, the *rencontre* must have occurred during daylight on the 14th. Observations in America will probably allow this point to be determined.

One of the best of the mid-November meteor showers has its radiant in Taurus, and it is a stream which furnishes an unusual proportion of fireballs. Several of them have been observed in the present year. About ten Taurids were seen at Bristol on the nights of the 13th and 14th, and Mr. Corder says that on the 12th and 13th he found them rather active and diverging from an accurately marked centre at $58^{\circ} + 22\frac{1}{2}^{\circ}$.

Fireballs appeared on November 9 at about 8h. and 10h. 45m. p.m., and on November 11 at 6h. 2m. p.m. Several conspicuous meteors were also remarked on the early evening of November 14.

W. F. DENNING.

Bristol, November 17.

P.S.—A communication just received from Dr. A. Riggenbach, Professor of Astronomy at the University of Basle, Switzerland, contains the following:—"On November 13, after heavy rains the sky cleared up, and during the hours from 9h. 40m. to 13h. I perceived fourteen meteors, but only two of them appeared to be in connection with the Leonid swarm. From 1h. in the morning of the 14th, clouds impeded the observations. On November 14-15 the sky was overcast." Dr. Riggenbach's experience would therefore appear to corroborate the meagre results obtained at Bridgwater and Bristol.—W. F. D.

A Remarkable Daylight Meteor.

JUST before five in the afternoon of Wednesday, the 13th inst., a meteor of rare brilliancy, evidently one of the Leonids, was seen here. It was as large as Venus at its best. When flashing into view it lighted up the landscape with startling effect, though daylight had not faded. The meteor was followed by a dazzling golden-coloured train, which lasted for several seconds. The colour of the meteor by the waning daylight was of a peculiar greenish-blue tint.

Owing to the large size and intense brilliancy of the meteor, I expected that its grand appearance would have been observed in some other locality and noted in NATURE. Here this season the stream of the Leonids has been little in evidence.

Worcester.

J. LLOYD BOZWARD.

The Feeding-Ground of the Herring.

In your issue of October 24, Mr. Alexander Turbyne takes exception to the belief that copepods are most abundant between the Laminarian zone and the 20-fathom line. He gives his experience to prove that they congregate chiefly "in the deep water over the mud," and his contention is that herrings found with great numbers of copepods in their stomachs feed, for the