

I AM obliged to Dr. Harrison for remarking on the mistake in my letter in NATURE of December 9 where in one place "Aphides" was written instead of "Coccidæ." The specific name *proletella*, placed under the outline sketch in Fig. 1 *a*, was given on the authority of a well-known entomologist to whom specimens were sent for identification. Dr. Harrison would name this *brassicæ*.

With regard to the number of genera and species to which he refers, the present tendency seems to be to multiply both unnecessarily. Among the various Aleyrodids which I examined there appeared to be considerable variation, and it was possible to collect from the same plant specimens differing in size from large to small through many gradations and having wing spots either well marked or nearly evanescent.

The difference between "species" and "variety" is one of degree, but specific difference may be claimed for races which have so diverged that a fertile mixed race cannot be produced from them. Whether this condition is satisfied in any particular case can only be determined by rather laborious trials, but in the absence of evidence of this kind it would be more correct, and certainly more convenient, while noting small differences (which may be constant in certain circumstances and localities) to treat them as varieties.

A. MALLOCK.

9 Baring Crescent, Exeter,
December 21.

Science and Armaments.

I DESIRE to direct the attention of readers of NATURE to a matter which I think to be of importance. During the war of 1914-18 a great number of scientific men, other than those in the medical service, were engaged on work which was devoted entirely to military ends.

Since the armistice there has been some tendency, not unnatural perhaps, to confuse this war work with other researches carried out directly in the service of science. In the Science Library, South Kensington, cheek by jowl with works on atomic theories or relativity, are found such books as one on the organisation of the Army Signal Service, and another on poison gas warfare which adopts most successfully the language of a scientific text-book. In the publications of certain learned societies, nominally concerned with purely scientific aims, are found descriptions of instruments and investigations of almost purely military interest. The collection of war material at the Crystal Palace is shortly to displace the priceless collection of historical apparatus and instruments from the Western Galleries of the Science Museum; the instruments are to go into storage, in a place where they will be inaccessible to the general public, for an indefinite period.

The lamentable implication seems to be that the development of armaments now holds a recognised place as one of the worthiest aims of science, but that is a doctrine which, I trust, is still very much open to question. It is more probable that we simply lack good taste and a proper appreciation of relative values.

I venture to suggest that science would be best served by keeping these things separate. If necessary, let the Government extend a military museum to house such of the material from the War Museum as possesses real interest from the military point of view; it should not be allowed to displace a single instrument from the historical collections. Let us also refrain from filling our library shelves with matter of the kind previously indicated. So may the temple of science be kept free from echoes of human quarrels.

The example of the British expedition sent, in spite of the war, to test the Einstein effect has often been quoted as an outstanding example of the wonderfully dispassionate internationalism of science, but it scarcely bears comparison with the events of a hundred years ago when Davy, taking Faraday as his assistant, travelled to Paris to lecture during the height of the Napoleonic wars. We have gone far since those days—In which direction? L. C. MARTIN.

Imperial College of Science, South Kensington.

Waterspouts.

WITH reference to the letter from Dr. Hale Carpenter (NATURE, September 23, p. 414) describing an interesting waterspout seen over Lake Victoria, a letter has been received in the Meteorological Office from Mr. H. E. Wood, of the Union Observatory, Johannesburg, describing the development of a cloud pendant seen by him on the afternoon of November 19, 1922. The following extract from Mr. Wood's letter describes the occurrence:

"The day was a particularly calm one, the morning was hot with a fairly clear sky, but early in the afternoon there were many cumulo-nimbus clouds in the sky. I noticed particularly the uniformity in the base-level of all the clouds. Just about 3 P.M. I noticed a little pendant cone under one of these clouds and, having seen a waterspout here once before (in 1910) thought this might become one and decided to watch it. The waterspout developed rapidly and I got Mrs. Wood to make a series of drawings of it. Unfortunately the waterspout was rather too far away for photography—it would have been very small taken with an ordinary camera and I had no telephotographic lens available. The interesting feature of the waterspout seemed to me to be the detail of the earth-end (as shown in Fig. 1 reproduced

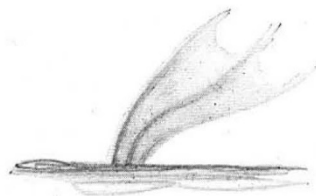


FIG. 1.

from a sketch made at 3.15 P.M.): there was a well-marked "core" surrounded by a less dense sheath. It did not rain in the vicinity of this spout until some time afterward; so that the lower part would probably consist of dust. Later we saw a series of waterspouts in the same vicinity. We estimated (when this particular cloud became an active thunderstorm) that the distance of the waterspouts was about 8 miles and hence that the length of the column or height of the cloud base was about 3700 feet."

The phenomenon noted by Mr. Wood is very similar to that noted by Dr. Hale Carpenter, except that in the present case the part shown in the sketch is probably due mainly to dust raised by the whirl. It is possible, however, that the greater density of the central core is due to condensation of water vapour.

D. BRUNT.

Meteorological Office, Air Ministry,
December 23.

I STOOD watching the effects of an ordinary small whirlwind when a Swahili volunteered the information that similar phenomena were at times to be seen over the sea, but that, in those cases, what one saw was God (*Muumgu*) drawing a whale (*nyamgum*) aloft.