facturers' Association, which has issued the dictionary, "is one of the industrial associations working in connection with the Department of Scientific and Industrial Research." Will you permit me to correct a slight misunderstanding here? The British Optical Instrument Manufacturers' Association is a trade association, and is independent of the Department of Scientific and Industrial Research. The industrial research association formed under the scheme of the Privy Council for the promotion of scientific and industrial research is the British Scientific Instrument Research Association. Most of the leading British manufacturers of scientific instruments are members of both associations, but the credit of publishing the dictionary referred to is due wholly to the British Optical Instrument Manufacturers' Association.

J. W. WILLIAMSON,
Secretary, British Scientific Instrument Research Association.

26 Russell Square, W.C.1, May 13.

Picture-hanging Wire.

I SHOULD be glad to know the best kind of wire and the best form in which to use it for hanging pictures, etc., on walls.

Some ten years or so ago I was advised to use twisted brass wire of five strands, which was then immensely strong with a breaking strain of probably more than 100 lb., but it has become so rotten as to break under a weight of a pound or two. This wire has been in use in a very dry room with electric light only. My own experience has proved that plain copper wire in one strand has lasted three times as long as the twisted brass wire, though bearing far heavier weights. Before the war a "wire" consisting of a steel core with some other wire braided over it was recommended, but it is soon affected by rust, and appears to be much stronger than it really is.

R. B. MARSTON.

Surrey Lodge, 160 Denmark Hill, S.E.5.
May 12.

The Occurrence of Bombus in the Indian Plains.

As it is generally agreed among naturalists that the genus Bombus—the "bumble-bees" of Europe—is in India entirely confined to the hills, and never descends below 3000 ft., I write to record its occurrence in the plains.

Nearly three years ago, when my entomological knowledge was yet in a rudimentary state, I remember occasionally seeing a bee, which I considered a species of Bombus, at Sukna, situated at the base of the hills of the eastern Himalayas. The few friends to whom I mentioned the incident generally politely turned the conversation aside, but the actual capture a few days ago in Calcutta of two specimens of *Bombus tunicatus* seems to indicate that my first observation was probably correct, and that "bumble-bees" do (very rarely, of course) occur in the Indian plains in the cold season. CEDRIC DOVER.

Indian Museum, Calcutta, December 28.

Symbols in Vector Analysis.

IN books on mathematics and physics where vector analysis is used it is customary to use clarendon or thick-letter type to distinguish vector from scalar quantities. This practice has, among others, the disadvantages that it reduces the number of symbols available for other purposes, and is impossible to reproduce in manuscript.

It is justified only by the fact that it prevents confusion between the two types of quantities and the consequent application of algebraic operations to vector quantities and *vice versa*.

Another means of reaching the same results without the above disadvantages would be to replace the symbols +, −, and = by new symbols in vector analysis. This would be of itself sufficient to differentiate vector from algebraic symbols, and would be more logical, as the symbols stand for quite different ideas in the two systems of analysis.

R. H. NISBET.

Kut, March 26.

Young's Interference Experiment.

I HAVE read with considerable interest Dr. Houstoun's letter on Young's experiment in NATURE of April 28, p. 268, and I beg to state that we have been using the spectrometer for some time in the University College of Science, Calcutta. For making the double slit, a rectangular slit, about 2 cm. × 2 mm., is cut in a piece of cardboard. Two Gillette razor-blades are placed on two sides of this slit by small pieces of wax. At the centre a fine cocoon fibre, or preferably a spider thread, forms a double slit. By mounting the cardboard on the prism-table the fringes are easily seen, and as the rotation of the table alters the width of the slit the change in the nature of the fringes can be easily examined. P. N. GHOSH.

97 Finborough Road, S.W.10,
May 9.

The Origin of "Churning at 62°" on Dairy Thermometers.

MR. HEDGER WALLACE'S question (NATURE, April 28, p. 268), "Why do makers of dairy thermometers mark their thermometers 62° F. as churning temperature?" interests us as thermometer-makers who are frequently asked to supply floating dairy thermometers to a particular pattern. In many cases the customer decides the pattern, and we are prepared to satisfy our customers' requirements. We make and sell a large number of dairy thermometers not marked at any particular temperature for churning, and we advise this pattern, as we are told by dairy experts that any temperature between 45° and 62° F. may be required, according to conditions. It appears that no definite temperature can be fixed; therefore, to mark 56° F. as a fixed point for churning would be equally in error. A. C. COSSOR AND SON.

Accoson Works, Vale Road, London, N.4,
May 9.

Organism in Flint.

IN reference to Prof. Cole's suggestion (NATURE, May 12, p. 333), the possibility of the organism being a radiolarian was considered long ago and rejected. The consensus of opinion is now in favour of its being a beetle. Under higher powers the clavate and merismatic antennæ are very conspicuous. There is no micro-slide of the fossil; the photographs are taken direct from the flint-surface. Special photographs of the organism's separate parts are now being prepared under more favourable conditions, and will be available shortly. C. CARUS-WILSON.

May 13.

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