

cases called attention to it as a 'new method' for the administration of this anaesthetic. His work made an impression in his own country and on this side of the ocean. Others took up the method; and the journals had much to say about the promise which this improvement held out of being very useful, not merely in some special operations, but also in general. Then came reports of unpleasant complications and unexpected effects more or less beyond the control of the operator.

While this experience was growing, and practical rules were slowly getting formulated, some of the older doctors, and some of the more 'literary fellers' of the craft, bethought themselves, and remembered that this 'new method' was, after all, nearly as old as ether anaesthesia itself. It seems that in 1847 Pirogoff recommended this application of ether-vapor, others having tried a similar use of the liquid alone or in a mixture with water. Pirogoff and the few others who gave the really new method a trial were not altogether satisfied, and seem to have abandoned it in a short time, except to meet a few very special conditions. Twenty-one years ago (1863) all this was fully described, and the dangers of such administration pointed out, by Perrin and Lallemand in their work on surgical anaesthesia; and as late as 1875 Claude Bernard mentioned it as an 'historically curious' method of considerable uncertainty and little practical value.

There would seem to be no easy way of avoiding such repetitions, unless, perhaps, to have some member on the editorial staff of every medical journal learn a few of the larger indexes by heart, and stand ready to nip all 'new' methods and schemes in the bud. In general, however, a certain amount of repetition, even in practical matters, is not always objectionable; and, in scientific research in competent hands, it is even less so. The corroboration which may thus be obtained has frequently considerable value. Then, too, it must not be forgotten, that a fresh investi-

gator who takes up an old problem apparently solved, perhaps is likely to approach it from another point of view, and with different traditions and equipment from his predecessors. Thus it is possible, that what at first appears to be needless repetition may lead to important results. It is a common experience, too, that few sets of old observations are really complete or useful, save for the particular and limited objects which interested the investigator.

THE use of the word 'scientific' at the present time, illustrates how custom overrides etymology, giving sanction to an application of a word quite inconsistent with its derivation. 'Scientific' means, strictly, 'knowledge-making;' but it is employed to signify 'relating to, or in accordance with, science.' Last week we reviewed a work on 'scientific butter-making.' Now, if we could, by any process of manufacturing butter, produce science at the same time, every one would agree that it was an eminently practical and economical invention; but, alas! the true Anglo-Saxon defies etymology; and nobody will misunderstand the customary meaning of 'scientific' in adjectival association with butter-making, or when used to qualify much else which never makes knowledge. The word is a curious example of error becoming correct through usage. If we could only add the word 'sciential' to the language, usage might then conform to etymology in regard to 'scientific' by transferring half its duties to the new adjective.

LETTERS TO THE EDITOR.

*** Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

Iroquois grammar.

THE lively letter of your esteemed correspondent, Mrs. E. A. Smith, is satisfactory in one respect; as it explains clearly her views on the subject discussed by her at the late Montreal meeting, and now more briefly in your columns. Her remarks lead to inferences for which she is probably unprepared, and which she will be inclined to regret and disown; for she doubtless, like all who know the French missionaries among the Iroquois, has a high opinion of their learning and worth. Yet her suggestions necessarily imply that these worthy men are sadly incompetent

for their duties as teachers and translators, or worse than incompetent. We are, in effect, given to understand that they have either mistaken or purposely misrepresented the meaning of certain important pronouns, which they must have heard and used constantly for many years, and on which, to a great extent, the life and force of the language depend. If this is the fact, their scriptural and other translations, and their tracts and other original works, in the Iroquois language, which conform strictly to this system of grammar, must be all wrong. Furthermore, it must be considered that the English missionaries among the western Iroquois (the Mohawks) have, during the last hundred years, published several scripture and other translations in that language. These, though made altogether independently of the French versions, and with a very different orthography, are based on the same system of grammar; and if Mrs. Smith is right, these versions are, of course, erroneous. Still further, several scripture translations have been made by educated Indians among both the eastern and the western Iroquois. These follow the same grammatical method. That Indians, writing for Indians, would use their language incorrectly, is a supposition which Mrs. Smith herself will perceive to be inadmissible. This simple fact is therefore decisive of the question, and shows clearly that the missionaries are in the right.

If your respected correspondent has any doubt about the correctness of the statement now made, she can readily satisfy herself by reading and analyzing the translations referred to. She has assuredly no desire to do injustice to any person; and she will therefore be pleased to have her attention drawn to this easy and satisfactory test. In justice to Mrs. Smith herself, it should be remembered that the Iroquois is one of the most difficult of languages, requiring years of study to master it. That a beginner in this study, however intelligent and zealous, should be occasionally at fault about a point of grammar, is both natural and pardonable; but that learned missionaries, who have had forty years of practice in the language, who speak and write it as fluently as they do their own, and some of whom are accomplished philologists, should be mistaken on such points, is simply incredible.

To say that it is 'hazardous' for one who is not perfectly familiar with a foreign speech to undertake to expound its niceties to those who are adepts in it, is merely to hint a friendly warning. Nothing, indeed, can be more ill-advised than such an attempt. When a distinguished French writer rashly suggested that the name of the 'Frith of Forth' was probably a corruption of the 'first of the fourth,' his readers were inclined to measure from this absurd suggestion the extent of his knowledge of the English language, and perhaps did him much injustice. THE REPORTER.

Points on lightning-rods.

Mr. A. B. Porter's letter in relation to points on lightning-rods (*Science*, iv. p. 223) suggests the propriety of calling attention to the fact, that, inasmuch as the 'power of points' in neutralizing the electrical charge of the cloud depends upon the convective discharge of the opposite kind of electricity from the point of the rod, it is evident that it requires time for the rod to effectually perform its true function of disarming the cloud, and thereby averting the disruptive stroke. If a highly charged cloud is rapidly driven towards the point of the rod, the latter may not have time to neutralize the electricity of the cloud, and the rod may receive the disruptive stroke

of lightning: this seems to have been the case with Mr. Porter's rod. If the cloud had slowly approached the pointed conductor, it would have been silently neutralized, and the stroke averted. The significant point is, that convective neutralization is a gradual process, requiring time (see *Nature*, xxiii. p. 386). A familiar class-experiment will illustrate this point. If a charged Leyden-jar is held in one hand, while a sharp-pointed needle is held in the other hand, and the point of the needle is slowly brought towards the knob of the jar, no shock will be experienced when the point of the needle touches the knob: the charged jar is silently neutralized during the gradual approach of the point. On the contrary, if the point of the needle is rapidly brought towards the knob, a visible spark will pass to it, and a more or less severe shock will be experienced by the experimenter.

JOHN LECONTE.

Berkeley, Cal., Oct. 7.

A wider use for scientific libraries.

Your remarks in *Science* (iv. 335-336) on a wider use for the libraries of scientific societies, give me occasion to mention at least two societies which make such use of their libraries. I think you would do a service by collating a list of such societies, and making a statement of their rules for the loan of books. A brief standing notice, or one occasionally inserted, would be of service to your readers. Certainly the societies not deriving a revenue from these loans should not be expected to advertise at their own expense.

The constitution of the American association for the advancement of science provides that all books and pamphlets received by the association shall be catalogued, and that members may be allowed to call for such books and pamphlets to be delivered to them at their own expense; but as yet the books are not available, as the catalogue has not been made. The Cambridge entomological club allows subscribers to *Psyche* the use of its library under certain restrictions, — a library containing about a thousand titles. On the other hand, the American entomological society provides that "no books presented to the society shall be loaned from the hall under any pretence or for any purpose whatsoever."

The publishers of the *Revue et magasin de zoologie*, at Paris, conducted for many years a circulating library amongst the subscribers to the magazine, and reported that they had never sustained the loss of a single volume. Will not other societies or periodicals copy these practices?

B. PICKMAN MANN.

Washington, D.C., Oct. 21.

A possible danger to mariners.

During the whole of the night of Aug. 23, 1884, the lantern of the lighthouse at Cape San Antonio, the westernmost point of the Island of Cuba, was surrounded by a cloud of winged insects, almost entirely of a bright red hue, their presence causing the light to assume a decided red color. The wind was moderate and from the south-west; the sky was overcast. A few of these insects have been sent to this city by Francisco Bautista, the keeper of the light, and identified as *Dysdercus sanguinarius* Stål, the cotton-stainer. Though other insects have been observed to fly towards lights, this is the first time that this species has been so reported. It is to be hoped that such dangerous action will not prove chronic with this brilliant and beautiful hemipteron.

L. S. F.

New York, Oct. 23.