

The discoverer of a new idea can with comparative ease decide how it shall be expressed in his own language, but when the new word or phrase is translated into another language and there is no one to dictate its form, confusion is very liable to result.

The following terms appear to be slowly creeping in from the German in one dress or another, and, whatever forms the words may have, already assumed in English, it may safely be said that the writers and translators who have used them are more desirous that there should be correctness and uniformity than that personal preferences should prevail.

Mol, or *mole*.—‘Gram-molecule’ has become so common a word that a contraction of it seems desirable. Ostwald (in German) took the familiar abbreviation of *Molekül*, or *Molekel*, viz., *Mol*., dropped the period and made it an independent word as a substitute for *Grammmolekül*. The term has already appeared as ‘mol’ in at least four English texts (three American and one British); Ostwald’s translator, however, renders it ‘mole.’

The choice between the two words may become easier after a consideration of their merits. ‘Mol’ has (1) the same spelling as the German original; (2) it is a new word and does not already have several meanings, as does ‘mole.’ On the other hand, it may be said for ‘mole’ that (1) it is pronounced like the German original and (2) is its proper and euphonious English equivalent, especially if it is premised that the word is actually of Latin derivation (from *moles*) and that there is no necessity of conforming precisely to the German spelling. Further, (3) ‘mol,’ if spelled as pronounced, would be ‘moll.’ Moreover, (4) ‘mol’ is easily confused with ‘mol,’ the common abbreviation of ‘molecule.’ Inasmuch (5) as ‘molecule’ is a diminutive of *moles*, or ‘mole,’ the latter term might very properly be used for ‘gram-molecule.’ (6) The counter-argument that ‘mole’ is already in the dictionary with four or five meanings may be discounted by those who regard the addition of one to five as of no great consequence. In the light of the above arguments ‘mole’ seems to have the advantage, though

neither word is entirely satisfactory. Perhaps ‘grammole’ would be better than either; it has almost every qualification except extreme brevity.

Molar.—We undoubtedly need a word to characterize a solution standardized on a molecular basis (instead of on the usual analytically equivalent basis) and ‘gram-molecular,’ as well as ‘molecular-equivalent,’ is too long. ‘Molar’ sounds well. The principal objection to it is that it already has a meaning in physical science ‘opposed to *molecular*’!

If ‘molar’ is to become the contraction of ‘gram-molecular,’ ‘mole’ would be the analogous contraction of ‘gram-molecule.’

Metal-ammonia compounds. It is rather difficult for the beginner to understand the German terminology of these interesting compounds, but the English texts, because of lack of uniformity, make the case almost hopeless. One popular text misleads us at the start by calling them ‘metallammonium compounds.’ English investigators in this field would do well to aid us in securing uniformity.

Hydroperoxide.—An abbreviation of ‘hydrogen peroxide.’ That *Hydroperoxyd* has much advantage over *Wasserstoffsuperoxyd* is readily seen, but just why we should drop three letters from ‘hydrogen peroxide’ is not so clear. It should be borne in mind that the *per* in ‘hydrogen peroxide’ is derived from an unreliable nomenclature. In view of the possibility of the existence of a still higher oxide of hydrogen, either (HO) or HO_{mn}, ‘hydrogen dioxide’ seems to be the only safe name for the compound H₂O₂.

Activate.—There is probably little objection to the revival of this practically obsolete word to express an effect on a substance by which it is rendered more active chemically.

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CURRENT NOTES ON METEOROLOGY.

CLIMATE AND CROPS IN THE ARGENTINE REPUBLIC.

‘THE Economic Geography of the Argentine Republic’ is discussed by J. Russell Smith in the *Bulletin of the American Geographical Society* for April (pp. 130-143),

especial emphasis being laid on the relation of the staple products of the soil to climatic conditions. Argentina is not unlike the region between the Missouri and Mississippi river systems and the watershed of the Rocky mountains. The rainfall decreases towards the interior in both regions, with a corresponding change in vegetation. Argentina essentially duplicates the United States in having in the northeast a rainy forest belt; then a corn belt and a wheat belt; then a wide stretch of semi-arid and arid plain, and at the base of the Andes, agricultural settlements depending upon irrigation supplied by water from the Andean snowfields. In the north, with heavy rainfall, dense tropical forests are found. Cattle extend north even into the district of heavy rainfall in the northeastern territories, while horses do not thrive in a rainfall of more than fifty-five inches in the Argentine, and sheep are found south of the isohyetal line of forty inches. Being able to endure cold and hunger, sheep succeed as far south as the southern shores of Patagonia, and even of Tierra del Fuego. The north, west and south, because of excess or deficiency or unfavorable distribution, of rainfall, are not adapted for wheat, the wheat district being a rough parallelogram in the eastern central part of the country. Corn, owing to its requirement of summer rains and its ability to withstand higher relative humidity, finds favorable conditions in the eastern part of the wheat region, and in the more humid northeast. In the valleys of western Argentina, where water is available for irrigation, crops are grown more independently of rainfall.

KITE-FLYING IN SCOTLAND AND THE CYCLONE THEORY.

UNDER the auspices of the Royal Meteorological Society, for seven weeks during the summer of 1902 kites were flown with great regularity from a tug off the west coast of Scotland. The suggestion of flying kites in this way came originally, it will be remembered, from Mr. A. Lawrence Rotch, of Blue Hill Observatory. Mr. W. H. Dines, in a brief account of the work (*Nature*, June 18), states that, although the evidence from the

summer's work was not sufficient to be conclusive, so far as it went it tended to show that as a cyclone approaches the decrease of temperature with altitude becomes less. Every cyclone that passed while the kite-flying was in progress showed this condition. This 'leads to the conclusion,' says Mr. Dines, 'that the upper air in the neighborhood of a cyclone is relatively warm, and that the cyclones are convectional effects.' And thus we have another contribution to the cyclonic theory discussion, which has of late somewhat flagged.

CARBON DIOXIDE IN LONDON RAILWAY CARRIAGES.

THE examination of the air in the carriages and stations of the Central London Railway, carried out by Drs. Clowes and Andrewes (*Nature*, Vol. 68, p. 591) showed in the carriages a maximum amount of carbon dioxide of 14.7 volumes, and a minimum amount of 9.6 volumes, in 10,000 volumes of air. In an elevator, on one occasion, 15.2 volumes of CO₂ were found in 10,000 volumes of air. Dr. Clowes is of opinion that standard air at any point on the railway should not contain more than eight volumes of CO₂ in 10,000 of air.

R. DEC. WARD.

RADIUM AND CANCER.

WE are permitted to print the following letters:

BADDECK, N. S., July 21, 1903.

DR. Z. T. SOWERS,
1707 Massachusetts Avenue,
Washington, D. C.

Dear Dr. Sowers:

I understand from you that the Roentgen X-Rays, and the rays emitted by radium, have been found to have a marked curative effect upon external cancers, but that the effects upon deep seated cancers have not thus far proved satisfactory.

It has occurred to me that one reason for the unsatisfactory nature of these latter experiments arises from the fact that the rays have been applied externally, thus having to pass through healthy tissues of various depths in order to reach the cancerous matter.

The Crookes tube from which the Roentgen rays are emitted is of course too bulky to be admitted into the middle of a mass of cancer, but there is no reason why a tiny fragment of radium