

curacy of expression, but are likely to create more mental obfuscation than they dispel.

Perhaps the agronomists need a few distinctive terms to add dignity to their science, but the chairman of their committee is not content to restrict his changelings to agricultural science.³ He seems to feel that his "words" deserve a more widespread popularity and will fill a need in the language at large. The ignominious fate of simplified spelling has been forgotten; a reform justified by sound logic and sponsored by the indefatigable Roosevelt with the full weight of his dynamic personality.

Apparently the agronomists are no longer content to permit the cultured to determine good usage in American speech. Hereafter these matters are to be more democratically decided. The ignorant minority must prevail in language as in politics, and illiteracy is to displace culture. This is an innovation and if we accept agronomic canons of good taste there is no logical reason for rejecting pathological or genetic canons, or for that matter amalgamated truck-drivers' canons. If the agronomists are successful in having their orthographic solecisms incorporated in the respectable dictionaries we may expect similar minority domination from all quarters and our language will become the plaything of irresponsible committeemen.

Nothing could be more absurd than such an arbitrary method of adapting a language to changing conditions. Culture ever has been identified with intellect and never will be achieved by means of the ballot despite the cajoleries of these modern Malaprops with their complacently acquiescent organizations.

All work and no play is detrimental even in matters scientific, but the agronomists, having had their little excursion behind the looking-glass, should now take their vorpal swords in hand and slay the jabberwock. They can then return contentedly to a consideration of their researches, secure in the knowledge that the elegance of their published reports will not be marred with pleonasms imposed by philological mountebanks.

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NOTE ON THE INERTIA DYADIC

FOR the dynamics of a rigid body it has been shown that the moment of momentum may be expressed as the scalar product of a dyadic—called the inertia dyadic—and the angular velocity. The inertia dyadic is defined by the relation

$$\Phi = \sum m(\mathbf{r} \cdot \mathbf{r} \mathbf{I} - \mathbf{r} \mathbf{r})$$

³ According to the *Jour. of the Amer. Soc. of Agronomy*, for December, 1927, the case for general adoption of these new words is to be presented in "American Speech."

Thus, it plays the same rôle for rotational motion as the mass for translational motion. There is an important difference, however. Whereas the mass is assumed constant, the dyadic is not constant and as a consequence it becomes necessary to obtain its time-derivative.

Starting with the expression given above it can be shown that

$$\dot{\Phi} = \mathbf{p} \times \Phi - \Phi \times \mathbf{p}$$

in which \mathbf{p} is the angular velocity. This shows, as was to be expected, that the time-rate of change of the dyadic is due only to the angular velocity. The form, however, is not so simple as in the case of vectors and I am not aware that any one has ever taken the trouble to express the derivative in this way. The expression is useful as a step in the development of rotational dynamics, for when taken in conjunction with the fundamental principle

$$\frac{d(\Phi \cdot \mathbf{p})}{dt} = \mathbf{L}$$

Euler's equations for rotational motion are obtained immediately.

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A NEW AMPHIBIAN RECORD FROM KANSAS, *HYLA PHAEROCRYPTA* (COPE)¹

In the spring of 1925 a specimen of tree-frog was collected near Wildcat Creek, west of the Kansas State Agricultural College at Manhattan, Riley County, Kansas. It differed from any that had been taken in the region and in life somewhat resembled *Hyla crucifer* because its irregular and asymmetrical dorsal markings tended to form a cruciform pattern.

Later the specimen was sent to the U. S. National Museum for identification and was kindly identified as *Hyla phaerocrypta*. Because of the close resemblance of this species to other members of its genus I did not include this report in my list of the amphibians and reptiles of Riley County (1927),² but held it for further study. The specimen was consequently sent to Dr. G. K. Noble, who independently agreed with the previous identification.

Hyla phaerocrypta is an amphibian of unusual interest. It was described by Cope (1889)³ from a

¹ Contributions from the zoological laboratory of the University of Michigan.

² Burt, Charles E., 1927, "An Annotated List of the Amphibians and Reptiles of Riley County, Kansas," *Occas. Pap. Mus. Zool. Univ. Mich.*, 189: 1-9.

³ Cope, E. D., 1889, "The Batrachia of North America," *Bull. U. S. Nat. Mus.*, 34: 1-515.