Comments and Communications

The American Naturalist

The American Naturalist, a journal established in 1867, became, beginning with its 85th volume in January 1951, the journal of the American Society of Naturalists, which has now assumed full editorial control. The society has designated L. C. Dunn, of Columbia University, as managing editor, and an editorial board is in process of formation. At present it consists of G. E. Hutchinson, Yale University; Thomas Park, University of Chicago; G. L. Stebbins, Jr., University of California; and Conway Zirkle, University of Pennsylvania. Jaques Cattell will continue as publisher, and the journal will be issued six times a year by the Science Press, of Lancaster, Pennsylvania.

The policy of the journal will be to continue its service to general biologists and naturalists through the publication of general essays, addresses, and symposia of biological societies which in the opinion of the editorial board contribute substantially to the purpose of the society in "correlating the various biological sciences."

It will continue to publish papers reporting new research, giving preference to those in which the chief interest inheres in theoretical interpretation and synthesis. It will make a special effort to publish promptly brief reports of new research, comments, and criticisms of material published in *The American Naturalist* or elsewhere, especially when these can be put in the form of concise letters to the editor. It will welcome such papers from naturalists in any country. Intending contributors are invited to consult the current number of the *Naturalist* (January 1951) for style and form to be used in preparation of manuscripts. Manuscripts and editorial correspondence should be addressed to: Editor, The American Naturalist, Box 2, Schermerhorn Hall, Columbia University, New York 27.

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Intracellular Fat Deposits in the Kidney

The recent paper by Dallemagne, Gerebtzoff, and Philippot (*Science,* **112**, 143 [1950]), regarding fat deposits in the kidney of the dog, may have called forth some comment from workers in the field.

The presence of fat in the renal tubular epithelium of the dog has been known for many years. The best recent description that I know is the work of Foote and Grafflin (*Anat. Rec.,* **72**, 169 [1938]), who studied teased preparations of the kidney.

Any statement regarding toxic effects upon the canine kidney manifested by changes in fat content would have to demonstrate significantly larger amounts than are present normally, or would have to demonstrate the presence of fat in a location other than the proximal convoluted tubules.

The photomicrograph shown by the authors (*op. cit.*) does appear to demonstrate more fat than one usually sees in the normal animal, but the diet of the animals would have to be carefully controlled in order to be certain that this is not a normal variation.

Their concluding statement, "This specific intracellular fat deposit in the kidney is bound to the still unelucidated biochemical lesion induced by hexachlorocyclohexane," is not justified.

The problem can be further elucidated by the use of other experimental animals, but in the light of present knowledge, the presence of fat in the dog's kidney must be regarded as other than "specific."

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Measurements in Colloidal Systems

A brief article under a similar title, by Jenny *et al.,* in the August 11 issue of Science raises questions of great importance in colloid chemistry. The customary electrochemical approach is abandoned by these authors. Starting from a theoretical consideration of the liquid junction potential arising between a salt bridge and a colloidal system, they proceed to discard entirely Donnan potentials between colloidal systems and true solutions in contact with them, and finally even to deny that analytical evidence for a Donnan situation exists in their experiments.

This is indeed a radical departure. Must chemists abandon the whole of Donnan theory? Is the evidence for it so feeble that it can be overturned by raising questions as to the elimination of liquid junction potentials by a saturated KCl bridge? The answer is obvious. Something must be wrong with these authors' interpretation of their own experiments. A detailed consideration of the latter is thus called for. Fortunately the article, although highly condensed, is sufficiently informative for this purpose. The pivot of discussion turns on potentiometric and analytical observations in a cell of the type

Sat. Calomel Sat. KCl	K^+ Colloid + KCl	KCl	Sat.Calomel Sat. KCl
		Y	

According to Donnan theory, the chemical potential of the molecular species KCl should, at equilibrium, be the same on both sides of the membrane, or boundary, *Y*. Since, however, the K colloid is not diffusible, this condition can only be met when the activities of chloride ions on the two sides are different. This difference in activity can then be used to calculate, by the Nernst equation, a boundary potential. Numerous ex-