

H. E. Patten's paper on 'Energy Changes accompanying Adsorption' showed that absorption could be looked upon as a special case of adsorption by combining the inhibition effect with the adsorption effect where both take place in the fine pores of a cellular body. Where the pores become very minute we may think of a solid solution as a limiting case of such an absorption effect. A résumé of the energy changes accompanying absorption was given.

On May 1, a special meeting was held at the George Washington University Lecture Hall. This was the first of a series of meetings to be held for the discussion of sanitary matters. W. C. Woodward, M.D., health officer of the District of Columbia, spoke on the 'Health Department of the District of Columbia, its Functions and Organization.' The speaker gave a history of the department; its relation to other branches of the city government; and told about the work of enforcing the smoke-, food-, marine products-, milk- and slaughter-house-regulations.

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DISCUSSION AND CORRESPONDENCE

ANOTHER WORD ON THE VULTUR CASE

IN SCIENCE of May 3 (pp. 708, 709) Mr. Stone makes a brief reply to my article on how the 'first species' rule works in determining genotypes in ornithology.¹ Inasmuch as he makes no attempt to traverse the principal positions there taken, it is perhaps almost ungracious again to open the subject. For the expert no reply is necessary, but the general reader may be misled by some of his statements.

Of the seven cases he would throw out from my list of twenty-one generic changes made necessary by the first species rule, *Spinus* may be saved by the rule of tautonymy, and *Colymbus* may be excluded by the provision

¹ See SCIENCE, N. S., Vol. XV., No. 640, pp. 546-554, April 5, 1907.

exempting Linnæan genera from its scope. Respecting the other five cases, Mr. Stone and I simply hold different views, and the details need not be here discussed.

In regard to the 'several inconsistencies' he claims to have pointed out in the *Vultur* case, one I frankly admitted, and explained as a pure blunder; the rest of the 'several' exist only in his imagination. While *gryphus* is the type of *Sarcorhamphus*, founded in 1806, it did not become its type at that date; it did not become the type till the other two of the original three noncongeneric species had been removed, and thus does not in the least affect the type of *Vultur* as determined by my elimination. By the current usage of all 'experts' in elimination—except Mr. Stone—*aura* and *papa* both go out at 1816, instead of the latter at 1854, as claimed by Mr. Stone. So this 'excellent illustration of the complexity of the elimination method and the opportunities it offers even to experts to fall into errors' fails completely to illustrate anything except Mr. Stone's ideas about methods of elimination.

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April 8, 1907

SUNSPOT ZONES

TO THE EDITOR OF SCIENCE: It occurs to me that Sporer's law of the sunspot zones might be accounted for in this way: When the last ring of planetary material was detached, it seems likely that a part of the material of the sun should have been lifted with this ring, only to fall back into the sun after the moment of parting. In the gaseous mass of the sun this may be supposed to have produced a system of waves of ring-like shape, whose velocity of propagation might be such as to pass from latitudes 30 to 5 in fourteen years. Their paths might perhaps be such as to come nearest to the surface in the latitudes where the sunspots have their maxima.

Any such progressive disturbance near the surface of some deep layer in the sun might be sufficient, in connection with the deflective influence of the sun's rotation, to occasion surface eddies, 'cyclones' as suggested by Faye. Or, they might cause 'eruptive' phe-