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 inbibition 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.

J. A. LECLERC,
Secretary

BUREAU OF CHEMISTRY,
WASHINGTON, D. C.

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 tautonomy, and *Colymbus* may be excluded by the provision 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.

J. A. ALLEN
NEW YORK,
April 8, 1907

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

nomena in the unstable static conditions of the outer layers of the sun.

I am not aware that such a suggestion as this has ever been made to account for Sporer's law. Of course I see many objections to it. The improbability of such waves long retaining their shape, and the observed absence of sun spots in the north hemisphere from 1672 to 1704, suggest themselves as obstacles.

J. A. Udden

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AFRICAN BASKETRY WEAVES

A large collection of ethnological specimens recently received by the Museum of Natural History, New York city, contains a selected series of baskets from the Barotse and Bechuana tribes. These baskets compare favorably in technique and finish with those of California and, what is of special interest, present all the typical weaves known in America. Among the Barotse baskets alone we find the following kinds of woven basketry: wicker, checker, twill, wrapped, plain twine, open twine, twilled twine, and the California 'ti.' Also in coiled basketry, one rod coil, grass coil closely covered, also with foundation showing bifurcated coil closely covered, also with only lines of stitching and coil without foundation.

The more elaborate manipulation of warp elements or materials in general, seems not to be practised, for there are neither cross-warp checkers nor cross-warp twines in the collection. The edges, while of all types, represent rather the refined variations. The thought of solidity or stability seems to have been the main idea. This is particularly well illustrated in the large rope coil and one-rod foundation coil chests and storage baskets. The technic is perfect and with the close-fitting lids give exceptional protection to grain or other contents. Strengthening by bands of the 'ti' weave, a technic heretofore thought to be limited to the Pomo Indians of California, is found; also an unusual wrapped twine, with the horizontal warp on the outside, like some Aleutian burden baskets.

The decorations in color occur chiefly in coil baskets. The color of the designs is uniformly black.

The main point of interest is that within a definite ethnic area of South Central Africa an aboriginal people practise basketry in which are found practically all of the typical weaves known to the world.

Mary Lois Kissell

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THE RECUPERATIVE POWER OF ITALIAN AND ENGLISH WORKMEN

To the Editor of Science: I am afraid that the statements contained in the letter of Mr. Joseph Y. Bergen,[1] as to the recuperative power of Italian and English workmen may induce some readers to unwarranted generalizations.

A statement of the kind would have more value if a comparison were made between the diet and the conditions of people of the *same race* and the same locality, provided in each case there existed a sufficiency of the articles of diet.

On the other hand, it is a known fact, that, generally speaking, the rural population of Europe has better recuperative powers than the inhabitants of the cities, although the latter eat much meat, while the country people live almost exclusively on a vegetable diet, meat being considered too expensive.

L. H. Baekeland

SPECIAL ARTICLES

SOME LATENT CHARACTERS OF A WHITE BEAN[2]

In order to secure material to display as simple illustrations of Mendel's laws of dominance and gametic purity, I made reciprocal crosses last year (1904) among four different varieties of the common bush bean. These varieties were the 'Prolific black wax,' with purple-black seeds, the 'Ne plus ultra' with yellow-brown seeds, the 'Long yellow six-weeks' with seeds of a light greenish-yellow color, and the 'White flageolet,' whose seed-coats are wholly without pigment, being transparent when saturated with liquids, but nearly white because of the inclusion of air when dry.

[1] Science, May 3, 1907, page 709.

[2] Read before the Botanical Society of America, at New Orleans, December, 1905.