be content with the general disclaimer, that it is in the main a criticism of views on venation originating with the reviewer and not held by myself.

Probably a combination of the effects of views strongly opposed to those of the author and a very cursory reading of the work reviewed have brought about the confusion resulting in thus attributing to the author much that he has never believed and in giving to the whole presentation a distortion that makes the theory almost unrecognizable.

Had he read more carefully he would not have failed to have seen, for instance, that the three series under which heads winged insects were discussed, were not presented as natural groups (p. 219), nor that the argument favoring the essential identity of tracheated and non-tracheated veins is the conclusion of the argument against the tracheal origin of veins (p. 220), nor have given what I considered as a possible though unwarranted view as being the basis of the system of independents (p. 221), nor the small table at the end of the chapter on Lepidoptera as the objective point of the whole work (p. 222), nor a score of other equally evident blunders.

I desire, however, at this time to criticize the argument offered by the reviewer: "The very presence of tracheæ," he writes, "between the two membranes of the wing when they are fusing sufficiently accounts for the primary location of the veins" (p. 220). The membranes fuse only after the emergence of the insect and the expansion of the wing. The cuticular differentiation of vein and membrane either in the wing of an existing insect or in the organ from which the wing was produced in the ancestor of winged insects, is dependent upon changes in the epithelial cells before the deposition of chitin preceding the final molt, and not at the time of the fusing of the membranes. This is simply the way differences of external structure of any part of the body are brought about, not during the molting process, but usually before or possibly rarely during the process of the cuticle deposition which precedes the molt.

Possibly it may be supposed that he inadvertently used the word 'membranes' but intended to mean the epithelial lining of the wing pad or of the organ which was the precursor of the wing, since in former articles he has described these cell layers as fusing. They usually simply touch, however, and often come into no definite organic union. The vein cavities also are so much larger than the tracheæ that it is very hard to see how their presence could have been any determining factor. It is not as though the tracheæ mechanically held the epithelial layers apart. Furthermore, why should a longitudinal vein require the presence of a trachea to warn off the approaching epithelial cells, but the cross-veins from the beginning remain capable of looking out for themselves?

These later suggestions, however, do not represent that author's present point of view, for he is evidently laboring under the delusion that the wing, unlike any other part of the insect's body, expands at the molting time devoid of cuticle and the cells perform this function only after expanding, for he speaks of the 'differentiation of veins from membrane, by the accumulation of cells about the vein cavities, and the stretching out of those that lie between' (p. 221). Now as long as the wing remains in the wing pad the veins occupy a very disproportionately large space and the cells of the membrane are correspondingly crowded—and in no conceivable sense can they be spoken of as stretching except under the assumption that the wings first expand before these cells are exhausted in cuticle production.

This absolute failure to appreciate the facts in the ontogeny of the wing, which must also have been true in whatsoever organ the wing may be supposed to originate, this fundamental misconception is accountable, I believe, for that author clinging so strenuously to the really unsupportable theory of the tracheal origin of veins.

C. W. Woodworth
University of California,
Berkeley, March 1, 1907

DELAYING THE BLOSSOMING OF PEACH TREES BY ETHERIZATION

As a means of avoiding late spring frosts, the writer finds that the season of blossoming

of peach trees may be delayed by injecting with saturated solutions of ether in water from an inverted bottle supported above. Etherization should be begun just a few days before the buds begin to open. In the writer's experiments blossoming was delayed eleven days. The trees were not injured by the treatment. Ripening was retarded by two or three days, but the fruit was materially increased in size.

Leafy shoots set in bottles of solutions are far more sensitive to the effect of ether than is the leafless tree, one half of one per cent. causing transpiration almost to cease in less than twenty-four hours. Opening flower buds are more sensitive still, being overcome by one tenth of one per cent. of ether.

V. A. CLARK

EXPERIMENT STATION FARM,
PHŒNIX, ARIZONA

AN ILLINOIS STATE ACADEMY OF SCIENCES

THE time seems ripe for the formation of a State Academy of Sciences in Illinois, which may aid scientific work throughout the state by banding together the leaders in the various departments of science, by stimulating students in the more isolated communities, and by forming a center for all scientific interests.

The demand for such an organization is great and the opportunity promising. It is hoped that every leader and every worker in science in the state will help the cause by becoming charter members.

Will those interested write to the undersigned suggesting the best time for the first meeting.

A. R. CROOK

MUSEUM OF NATURAL HISTORY,
SPRINGFIELD, ILL.

THE UNIVERSITY OF MAINE AND THE STATE LEGISLATURE

TO THE EDITOR OF SCIENCE: There appeared in SCIENCE for March 29, 1907, the reprint of an article in the *Boston Evening Transcript* regarding the University of Maine, which contained a few misstatements that should be corrected:

First. The committee appointed by the legislature presented a *majority* report favoring the discontinuance of the liberal arts course, not retaining it as stated by the *Transcript*. The *minority* report recommended its retention.

Second. The vote in the senate was 17 to 13 in favor of discontinuing the liberal arts course instead of retaining it as reported by the *Transcript*.

As the house favored retaining the liberal arts course by a vote of 123 to 12 the result is a deadlock between the two bodies and no knowledge of a settlement has reached the writer at this date.

On several occasions during the discussion before the legislative committee the leaders of the opposition to the University of Maine resorted to personal abuse of the president of the university; on one occasion he being accused of being 'a freebooter, with an ignoble desire to be president of a university.' Such a method of procedure by the opposition certainly does not tend to increase the respect of the people of the state of Maine for the opposing institutions and for their representatives. Such political methods should be beneath the dignity of the representatives of Maine's oldest educational institution, and we hope will receive the censure of its alumni.

P. L. R.

We are informed that the senate of the State of Maine passed on March 25, the appropriation for the University of Maine without withdrawing the right to confer the degree of bachelor of arts.—EDITOR.

THE ASSOCIATED PRESS AND NEWSPAPER SCIENCE

TO THE EDITOR OF SCIENCE: My attention is directed to a communication signed "C. A." in your issue of March 22. I am certainly amazed that so reputable a paper as SCIENCE should lend itself to such a statement without the slightest investigation.

The story respecting Matteucci and the Marchette's comet appeared originally in the *London Daily Mail* and was cabled to the *New York Sun* on February 22. It was denied in the *New York Sun* on February 25. The Associated Press never at any time cabled it to this country or anywhere else.