

would involve the question of a great Pacific atmospheric whirl, comparable to the supposed general movement during winter about the area of low pressure in the northern Atlantic. It would also involve a comparison of our weather here when we are in the Atlantic whirl with that which comes when the Pacific circulation pushes eastward over the mountains. There are numerous other questions involved in these observations, but they are postponed.

G. H. STONE.

Colorado Springs, Col., June 15.

Consecutive Lightning Flashes.

ABOUT 5.45 P.M. yesterday, while travelling over the "Jersey flats" on the Delaware, Lackawanna, and Western Railroad, I saw toward the south-west no less than six strokes of lightning following the same path — a nearly vertical one — in quick succession. The number was obtained from the grouping or "phrasing," as it were, of the flashes, which impressed itself on my mind. First there was a single flash, then a group of three, and then a group of two. They followed one another so rapidly that their separate character could just be distinguished, and the duration of the six must have been less than a second. I was at first inclined to believe that the paths had been precisely the same, even to the slightest sinuosity, but I am now inclined to think that they varied slightly, and that this variation aided me in recognizing their separate character. I am not aware that so many consecutive strokes have ever been noticed before. It may be interesting to add that this morning's papers report great damage by lightning in Elizabeth, N.J., in the direction of the observed flashes.

ARTHUR E. BOSTWICK.

New York, June 17.

Mocking-Birds and their Young.

AN educated Southern lady made to me the following statement, which seems too extraordinary to be true. My informant honestly considers it a fact. Is it true, or is she deluded by some accident? I leave the matter for those learned in the lore of birds to decide.

My friend says that while living in Mississippi, she frequently took young mocking-birds from a nest near the house, and placed them in a cage hanging on the verandah. The parent birds came, not to feed the young, but to endeavor to liberate them, by plucking at the cage. Failing in this, my friend says that they invariably brought to their imprisoned young bitter-sweet berries, which poisoned them, the birdlings only living a very short time after receiving the berries. She further said that the captives would do well as long as the parent birds were kept from the cage, but if by any inadvertence the cage was left on the verandah while the family went into the house, on returning they would find the bitter-sweet berries in the cage, and the little fledglings in a dying state. My informant further declared that this had occurred again and again within her experience, and that her grandfather gave strict orders that no mocking-birds should be captured, as their death would certainly be effected by the old birds. This is a strange story of bird-ways, that birds should be capable of choosing for their progeny death rather than captivity! I wish some of the Southern readers of *Science* would observe in the mocking-bird direction, and give us positive and recent information from careful experiment.

JULIA MCNAIR WRIGHT.

Fulton, Mo., June 16.

Thunder-Storms.

It has been noticed in connection with thunder-storms in this vicinity this season that in every instance there has been an outflow of air in every direction from the storm, extending even beyond the area of precipitation and cloudiness. For example, in the case of a storm appearing upon the south-western horizon and moving due east, and passing then three or four miles south of this village, the weather-vane pointed directly toward it continuously, veering slowly from south-west to south-east, showing that the wind came steadily from the storm. The same thing also occurred in the case of a storm which appeared upon the north-

western horizon and moved eastward, passing three or four miles north of the village. In this case the vane pointed directly toward the storm throughout, the winds being quite brisk. In other instances in which the storms passed directly over the village the same thing was manifest, the vane shifting sharply from west to east as the storms passed. In previous years I have noticed the puff of wind in front of an advancing thunder-storm moving in the same direction as the storm itself and occurring just before the rain begins to fall, but my attention has never been called to such an outflow of air in every direction as has been apparent in connection with thunder-storms recently. Whatever may be its explanation, it certainly is entirely inconsistent with the idea of an indraught and uprush at the centre of the storms in which it occurs.

M. A. VEEDER.

Lyons, N.Y., June 22.

BOOK-REVIEWS.

The Modalist, or the Laws of Rational Conviction. By EDWARD JOHN HAMILTON. Boston, Ginn. 8°. \$1.40.

THE author of this work claims to have perfected the science of logic. He says in his introductory chapter: "The treatise now offered to the public is the result of long-continued studies which have had for their object to place the doctrines of logic on satisfactory foundations; and it would be false humility were the author to conceal his assurance that these studies have been successful. He claims to have completed a work which Aristotle left unfinished." And again he says, speaking of himself: "He knows what he has been enabled to do; he is certain that he has found the truth on every important point" (pp. 1 and 3).

When we come to examine the improvements that Mr. Hamilton claims to have made in the science, we find that they consist mainly in the introduction of modal syllogisms, that is, syllogisms in which the conclusion is expressed in terms of possibility, probability, or contingency, as distinguished from the ordinary, or pure, syllogism, in which the conclusion is categorical. Such syllogisms were treated of by Aristotle, but modern logicians have rejected them as not properly belonging to the science, since possibility, probability, etc., belong, not to the form of thought, but to its matter. They are properties, not of our thought, but of the facts and events that we think about, and therefore have no proper place in a work on theoretical logic. Mr. Hamilton, however, gives such modal syllogisms the foremost place among the forms of reasoning, affirming that "the pure syllogism is the secondary mode of thought, and should be interpreted by the modal." Yet he immediately adds that the pure syllogism "is the best expression of our ordinary reasonings" (p. 262), an admission which is fatal to his whole theory.

Another of Mr. Hamilton's innovations consists in treating the principle of antecedent and consequent, which lies at the basis of the hypothetical syllogism, as the first principle of all reasoning, even in the ordinary syllogism. Such a turning of logic topsy-turvy as Mr. Hamilton proposes seems to us the reverse of an improvement, and we believe it will be so regarded by thinkers generally.

AMONG THE PUBLISHERS.

AN illustrated article by Edwin Checkley, which introduces some of his new theories of physical culture, forms one of the features of the July *Lippincott*.

— Among its contents the *Chautauquan* for July has the following: "A Symposium — Where Should a College be Located?" by Julius H. Seelye, Henry Wade Rogers, James B. Angell, Hjalmar Hjorth Boyesen, W. R. Harper, and Herbert B. Adams; "Modern Methods of Treating Inebriety," by H. R. Chamberlain; "Objections to College Training for Girls," by Emily F. Wheeler; and "Elizabeth Thompson, the Philanthropist," by Frances E. Willard.

— The publishers of the *Illustrated American* of this city announce a *Monthly Illustrated American*. The monthly has been planned for over a year, and is offered to the public as "the cheapest and best illustrated magazine in the world." It is com-