

done all these things in an interesting way, and has decidedly helped even those students who were well aware from the start that they could not place in the finals.

Several copies of the formula list are on hand, and may be secured by application to Dr. Hale.

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A CASTIGATION AND AN APPEAL

RECENTLY Professor G. A. Miller paused in a general address before the mathematicians of America to point out what he considered a flaw in one of my books. He said (this journal, 1924, p. 4) that it is "not true that he (Benjamin Peirce) was in charge of this almanac (the Nautical Almanac) for some years." Miller says that Peirce "did much work on the Nautical Almanac" and "was consulting astronomer from 1849 to 1867." The difference in content between Miller's statement of about fifteen words and my statement of three words ("in charge of") is the same as the difference between tweedledum and tweedledee. The admissibility of my phrasing is still more evident in the light of a passage in the preface of the first volume of the Nautical Almanac: "The theoretical department of the work has been placed under the special direction of Professor Benjamin Peirce, LL.D., and most of the calculations have passed under his final revision." It should be noted that in my book I carefully avoided saying that Peirce held the official title of "Superintendent"; such a statement would have been erroneous.

It should be noted that Professor Miller made two other errors in the passage which he devotes to my book. He informs the mathematicians of the country that among the men "in charge" of this almanac were "J. H. Coffin (1865-1877), and Simon Newcomb (1877-1894)." Now J. H. Coffin was a meteorologist and professor at Lafayette College, and was not superintendent of the Nautical Almanac; it was John Huntington Crane Coffin who was superintendent. Secondly, Newcomb did not retire in 1894. William Harkness, in his preface to the almanac dated September, 1897, says: "Professor Simon Newcomb, U. S. N., was director of the almanac until March 11, 1897." Miller's address contains some other misleading statements, but I confine myself to the part which relates to my book.

However, I do wish to make an appeal for fair play. Unfriendly critics are usually satisfied when they give a book one thorough overhauling. Not so Professor Miller. He prepared a long review of my book and then, during the past four years, followed it up with a procession of articles in various journals, further attacking that book. If his historical

criticisms were careful and accurate, his course might be justified. But I am prepared to show that many of them are not. Many of them are partly or wholly wrong. Also, most of them are superficial in the sense that Miller does not usually consult the original sources. Is it too utopian an appeal to the spirit of fair play to propose that, when a critic finds that he himself is mistaken, he should do justice to the author criticized by publicly retracting his erroneous criticism?

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QUOTATIONS

MOUNT EVEREST AGAIN

THE time is drawing near when, for the third time in four years, the climbers and scientists of the expedition organized by the Royal Geographical Society and the Alpine Club for the ascent of Mount Everest will turn their faces towards Tibet. General Bruce, once again the leader, as he was in 1922, starts this week for India, with Major E. F. Norton, about a month in advance of the main body, to make the final preparations on the spot. In the article which we publish this morning he discusses some of the chief factors on which the chances of success must depend. The proved competence of the British *personnel* and of the hillmen who acted as porters in 1922—impervious, he says, to cold, exposure and fatigue—is, to begin with, an asset of the highest value. Other assets are the insight which has been gained into the character of the people with whom the expedition will have to deal, and the extreme friendliness of the existing relations between the British and the government of the Dalai Lama—mainly brought about, General Bruce, says, by the action of our own political officers. It may be added that the leader's own wide knowledge and understanding of the Himalayan races have been, and will be again, of great service in the conduct of the expedition. General Bruce considers that the experience in high acclimatization gained during the last expedition will enable the use of oxygen to be delayed till a much later stage than had hitherto been considered practicable, and that this economy in its use will tend to simplify the difficult problem of transport on the highest slopes. On the other hand, the one unknown and unknowable factor—in itself the most important of all—will be the weather. Last year the monsoon, and with it the adverse conditions which cut short the time available for the one last and most promising attempt to reach the summit in 1922, was delayed. If, by great good fortune, the same thing happens this summer, the chances are probably in favor of success. If not—if, that is to say, the bad weather again comes before its time—

they will be seriously lessened. The ladder of camps essential for the final assault can only be established rung by rung, a process that must take time, and can only be continued while the favorable conditions last. But whether the result be victory or defeat, the third attempt to conquer Everest will mean, like the two before it, an inspiring display of the resolution and endurance and indifference to discomfort and danger that, all through the ages and to the uttermost ends of the earth, have made the people of these islands, above all things, a race of pioneers. When General Bruce says that the great adventure of Everest has now almost become a pilgrimage, he touches upon a profound truth. Just because the way is long and difficult and beset with dangers, the mere attempt to progress along and up it is worth while—worth while not only for the pilgrims who first try to set foot on these untrodden peaks, but for the help of all those after them who will try to do hard things, because hard things are an end in themselves, even with the possibility of failure and no material gain in view.—*The London Times*.

SCIENTIFIC BOOKS

The Coming of Man. By JOHN M. TYLER. Marshall Jones Company, Boston, 1923, pp. 142.

THERE is a real need and ought to be and probably is a large field for such a book as the one before us. This is a day of greatly quickened interest in questions involving the nature, the origin and the destiny of man. And certainly these questions are now asked on the basis of more general enlightenment and with more vital interest than ever before.

One evidence and one consequence of this is an increasing number of inquiries for reading matter on the subject by persons of general education. No one whose professional status is presumed to be a guarantee of his competency escapes requests for advice concerning such matters. It would be a great satisfaction to those solicited could they recommend without misgivings the reading of some one or a few books.

The Coming of Man is designed, the author tells us in his preface, to meet the needs of the class of persons here indicated. And on the whole the design seems to the reviewer pretty well realized. Indeed in most respects it seems to him so superior to the usual run of what is now being written in this general domain that for the present it will stand first in the list of books he can recommend to such inquirers. For one thing in particular the author deserves commendation: He has largely avoided the dogmatic speculation that puts much of later writings of this nature outside the possibility of commendation by a conscientious adviser.

As might be expected from a life-long teacher of biology, the biological groundwork for the origin of man is quantitatively ample. Indeed one may justifiably question whether it is not more than ample, for nearly a third of the volume is devoted to it. In the reviewer's opinion some of the space given to such subjects as the skeletal parts of arthropods and molluscs could more profitably have been devoted to subjects that come closer home to human beings but which are given scant attention. Examples of such subjects are myth and superstition. A chapter on the "Nature of Man" in a book on human development which contains no reference to these cardinal matters strikes one even moderately informed about the lives of primitive people, as the play of Hamlet with the character of Hamlet left out, sure enough.

The reviewer is truly desirous that his full judgment of the book shall be accepted as favorable. But he believes his expression of that judgment can be most effective if it follows upon the heels of a reference to what seems to him a serious defect in it. And the criticism just made points toward that defect.

So great has been the progress in recent years of man's knowledge of his own mental life, and so inextricably is that life now known to be interwoven with his whole life, that the day is forever gone when any book, however small, on human evolution, can be counted as modern and adequate which does not give as much space to mental as to physical development.

Yet the author of *The Coming of Man* gives his readers distinctly to understand that if they wish information about the coming of this part of their nature they must go elsewhere to get it. "The whole subject" we read (p. 26) "of instinct and intelligence, their resemblances and differences, compensating advantages and disadvantages, especially their origin, forms a field of most fascinating study, *into which we will not attempt to enter*" (italics by the reviewer).

This I submit is almost tantalizing. It seems to say to the reader, "Although I know a good deal about these matters in which you are undoubtedly much interested, I refuse to tell it to you."

Beyond a question the most distinctive thing, and the most important thing about man is his mind. And, as already intimated, so aware of this is general enlightenment, and so eager is it for more enlightenment concerning many aspects of mind, that it seems inevitable that in the near future authors who contemplate writing general books on human evolution but are unwilling or unable to include the evolution of mind in their undertaking, will on second thought see that it would be better to leave the whole job to somebody else.

But the book before us has in this a saving grace. The truth is, its author does not do as badly as he promises to. For in reality there are many enterings