that the large andesitic boulders contained in the formation have been transported very far from their source. Judging by the included boulders and pebbles and by the prominence of sun-cracks, the writer inclines to the belief that much of the Gueydan tuff was deposited on the land as a mud flow.

THOMAS L. BAILEY
BUREAU OF ECONOMIC GEOLOGY AND TECHNOLOGY, UNIVERSITY OF TEXAS

HYPERSENSITIVITY TO THE CASTOR BEAN

I WAS very much interested in a communication in a recent number of SCIENCE by Professor Robbins of the University of Missouri, with regard to a case of hypersensitivity to the castor bean. If any confirmation of such a phenomenon is necessary, I can supply it in plenty, both out of my own troubles and those of my instructor, Mr. Lamb.

I have always handled castor beans with impunity, but last fall I contracted a severe case of what was apparently hay fever, without the agency of either hay or pollen. I contracted it in the laboratory and there only. I noticed it first one day after I had been handling dissected castor beans, although I did not mark the connection at that time. I had the same symptoms as enumerated, without the headache—violent and continued sneezing and coughing, irritated mucous membranes of nose, throat and ears, swollen, puffy and reddened eyes, wheezy breathing—and in addition, violent itching of the skin under my chin and on my throat. The last effects of the above wore off only after three months and I am still in a rather bad condition now after one month of it this fall.

I soon attributed the trouble to something in the laboratory, for I noticed that the sneezing was worse on the three days that I had freshman laboratory classes and that I was not irritated so much on the other three alternate days. In order to try and recuperate, I stayed away from the class for a week and was much better, but got the trouble again the next week when I entered the laboratory. Then I began to experiment by removing various plants and plant parts, chemicals, etc., from the room to see what the cause was. I felt better after removing some sprouting onions, but this lasted only two days and I was just as bad the third day. Then I remembered the day of handling the dissected castor beans and removed those, with the thought that in some way the poisonous ricin might have brought about the trouble by being rubbed into my eyes, etc. As soon as the castor beans were gone, I felt better. The sneezing and coughing ceased, as did the itching of my eyes and chin, although it took me a long time to rid myself of the wheeziness in the bronchial tubes.

This fall the trouble came on one day when Mr. Lamb poured some dry castor beans out of a bottle for use in some germination tests, when I happened to be in the same room. I was paying no attention to him and did not know what he was doing, but I began to sneeze violently. It seems strange that dry castor beans should have initiated the symptoms of this fall's trouble, and it may have been only a very unusual coincidence, but, nevertheless, it was the first of my sneezing and hay fever this year. There were no growing or germinating castor beans in the laboratory at this time.

I am interested in having my own conclusions substantiated, for consultation with several physician friends of mine gave me no encouragement in blaming the castor beans for my misery.

WALTER H. SNELL
BROWN UNIVERSITY
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MR. BRYAN AND THE BISHOP

THE anti-evolution propagandists are meeting with continued success in certain districts. The latest evidence of this is to be found in the current press dispatches reporting that the schools of North Carolina will have no evolution. Evolution has there been banned, not by the legislators but by order of the state board of education. One wonders if there is any relationship between this action and the unusually large incidence of illiteracy in that state.

I am writing, however, to call attention once again to the familiar repartee reported in the life and letters of Thomas Huxley. In the columns of *Life* first appeared the conjecture that Mr. Bryan was not so much concerned with evolution as he was with elocution; perhaps this explains why the arguments used by the free-silvered-tongued orator savor more of catch phrases than of sound logic. A telling phrase in his anti-Darwinian speeches is the one in which he denies that his grandmother was a monkey.

At the Oxford meeting of the British Association for the Advancement of Science in 1860 the program of Section D centered around Darwinism. One of the closing meetings saw the Bishop of Oxford vent his sarcasms on evolution. Bishop Wilberforce was stifling the cause of evolution under misrepresentation and ridicule and smoothing over the weak portions of his address with rhetoric. We read that the good bishop spoke

> for full half an hour with inimitable spirit, emptiness, and unfairness. In a light, scoffing tone, florid and fluent, he assured us there was nothing in the idea of evolution; rock-pigeons were what rock-pigeons had always been. Then, turning to his antagonist with a smiling insolence, he begged to know, was it through his grandfather or his grandmother that he claimed his descent from a monkey?

The bishop's antagonist was Huxley, who at once grasped the fatal mistake in the speech. The way in which Huxley, as a champion of evolution, returned the thrust is described in *Macmillan's Magazine:*

Mr. Huxley slowly and deliberately rose. A slight tall figure, stern and pale, very quiet and very grave, he stood before us and spoke those tremendous words—words which no one seems sure of now, nor, I think, could remember just after they were spoken, for their meaning took away our breath, though it left us in no doubt as to what it was. He was not ashamed of having a monkey for his ancestor; but he would be ashamed to be connected with a man who used great gifts to obscure the truth. No one doubted his meaning, and the effect was tremendous. One lady fainted and had to be carried out; I, for one, jumped out of my seat.

Almost 64 years have elapsed since this repartee. In this interval evolution has become more firmly entrenched in observation, while the opposition seems not to have altered noticeably. One may venture to wonder why Mr. Bryan denies that only his grandmother was a monkey; surely he had at least two grandparents!

DONALD A. LAIRD

NEW HAVEN, CONNECTICUT

SCIENTIFIC BOOKS

Weather Proverbs and Paradoxes. By W. J. HUMPHREYS. Baltimore, Williams and Wilkins, 1923, pp. viii, 125.

HERE is a volume written by a well-known scholar, dealing with an exceedingly complex subject, explaining the principal phenomena of meteorology in words of one syllable, so to speak, yet without ever using language merely to catch attention. The treatment is elementary, but everywhere clear, dignified and accurate.

The exposition consists of two parts. In the first eighty pages the author explains some of what he calls reasonable and sound proverbs. The remainder of the book is devoted to a number of meteorological principles which are rather strikingly presented as paradoxes, and are explained with a clarity that comes only from a profound understanding of the facts.

At the very start, the reader's curiosity is aroused to learn the source of all these proverbs. Some are quoted from certain authors; some are placed between inverted commas without any name; all the others, most of them in metric form, are presumably expressions of the author. Under the head of "Sky Colors" is an exquisite account of the significance of the red and gray skies of both morning and evening. Incidentally, this section includes very briefly the story of Lord Rayleigh's dynamics of the blue sky and the subject of cloud formation.

The section on tides impresses a layman as being a little farfetched. The tide is a synonym of regularity. Here, however, the word is used to indicate "irregular tides," which would appear to be tides only in the sense that any *seiche* in a lake is a tide.

The first paradox which reads, "Air pushed north blows east," offers opportunity for explaining, in a most interesting style, the phenomenon of deflection to the right—the fact that any steady wind always blows along the direction of the isobar and not at right angles to it. Another paradox, "To cool air, heat it" serves as text for a discussion of convective equilibrium. In the same manner the existence of that remarkable isothermal region which is only six miles away from any one of us at any time is set forth so simply as to fall well within the comprehension of a first year student in physics.

The curiosity of any intelligent lad is certain to be aroused by the second half of this book; while the first half is more likely to interest the lad's father, who is probably more weather wise. Joseph Henry said that his interest in physics was first awakened by reading Gregory's "Popular lectures on experimental philosophy," (London: 1808), which begins by asking questions such as these:

> You throw a stone, or shoot an arrow into the air; why does it not go forward in the line or direction that you give it? Why does it stop at a certain distance and then return to you? . . . On the contrary, why does flame or smoke always mount upward, though no force is used to send them in that direction? And why should not the flame of a candle drop toward the floor when you reverse it, or hold it downward, instead of turning up and ascending into the air? . . . Again you look into a clear well of water and see your own face and figure as if painted there. Why is this? You are told that it is done by reflection of light. But what is reflection of light?

Dr. Humphreys' volume raises dozens of just such queries: they are answered in delightful English and can not fail to stimulate the curiosity of many readers. It is gratifying to notice that the historical development of the various sciences is attracting more and more interest. One can only wish that the author had seen fit to include some remarks concerning the personal history of the men who have established these principles—the knights-errant of meteorology—

> The dead but sceptered sovereigns who still rule
> Our spirits from their urns.

The book is excellently produced, and is made especially attractive by numerous full page illustrations.

HENRY CREW

CRETACEOUS FISHES OF BRAZIL

UNDER the title of "Peixes Cretaceos do Ceara e Piauhy," Dr. David Starr Jordan has written an elaborate account of Cretaceous fishes from the famous locality of Barro do Jardin, from which