

to the hill-tribes in the mountainous region to the north of Burma, and especially between Bahmo and Momien. These call themselves by many different names, Chyens, Kyaws, Paloungs, Khamis, Mros, &c., but a closer examination of dialects, and especially of traditions and customs, proves, says Mr. Scott, that they are merely waifs and strays from the four main stocks, Burmese, Peguan, Karens, and Shans. The Salones of the Mergui archipelago, some of the Arakan hill-tribes, and the notorious Kachyens in the north, are apparently exceptions, but all the others belong to one or other of these four families. The Kachyens just mentioned are so called by the Burmese; they call themselves Singpho, or Singpaw, which means simply "men." Ethnologically they are a branch of the Singphos proper, who inhabit the northern Assam hills, and are better known to us by their local names of Gáros and Nagas. Such at least is Mr. Scott's account of them; but it is quite clear that the last word has yet to be said by ethnologists about these and other tribes adjoining our new territory. The last pages of the volume are devoted to an account of the habits, manners, superstitions, &c., of these hill-tribes. The writer would probably be the last to expect a very high position for this volume as one of original research or information; but he may fairly claim to have performed a task of much usefulness and interest in a thorough and workmanlike manner. He has placed within easy reach of his countrymen sound and accurate information about a region for the peace, order, and good government of which they have now assumed the responsibility; and Mr. Scott's own previous writings are mainly responsible for having deprived part at least of the present book of the merit of originality likewise.

*Marvels of Animal Life.* By Charles Frederick Holder. (London: Sampson Low, Marston, and Co., 1886.)

THE author, during a long residence among coral reefs somewhere on "our southern border"—we have failed to find exactly where—studied very diligently the various forms of marine life abounding in such places, and he seems to have been attracted more especially to the study of the fishes. From the interesting records of these observations to be found in this little volume there can be no doubt that Mr. C. F. Holder has been a close and intelligent student of nature, and he has grouped the observations of others with his own in a manner to make the record fairly interesting reading to a specialist. To the wider field of young students some of the escapes from whales and swordfish will prove even exciting reading, while, so far as we can judge, none of the chapters convey erroneous or exaggerated views of the marvels of animal life. The illustrations, of which there are thirty-one, in the form of plates, are often rather sensational, and the majority of them would hardly be claimed as after nature. The work is sure to be popular, from the very novelty of the subjects about which it treats.

LETTERS TO THE EDITOR

- [The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]
- [The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.]

Integer Numbers of the First Centenary, satisfying the Equation  $A^2 = B^2 + C^2$

I HAVE sometimes wished to refer to the principal integer numbers which satisfy the equations  $A^2 = B^2 + C^2$ , and I have computed all in which the leading numbers rise to and slightly pass the value 100. Perhaps they may interest some of the readers of NATURE.

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A	5	13	17	25	29	37	41	53	61	65	65	73	85	85	89	97	113	145
B	4	12	15	24	21	35	40	45	60	56	63	55	77	84	80	72	112	144
C	3	5	8	7	20	12	9	28	11	33	16	48	36	13	39	65	15	17

In mechanical applications of these numbers, it is usually desirable to select those in which the proportion  $B : C$  differs least from 1. I place, below, the numbers B and C arranged in the order of value of the fraction  $\frac{B}{C}$ .

No. in order of value of $\frac{B}{C}$	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
B	21	72	55	4	45	56	15	80	77	12	35	24	63	40	60	84	112	144
C	20	65	48	3	28	33	8	39	36	5	12	7	16	9	11	13	15	17

Original order	5	16	12	1	8	10	3	15	13	2	6	4	11	7	9	14	17	18
----------------	---	----	----	---	---	----	---	----	----	---	---	---	----	---	---	----	----	----

White House, Greenwich, March 31

G. B. AIRY

The Sunrise Shadow of Adam's Peak, Ceylon

SOME of the phenomena of the shadow of Adam's Peak in the early morning have been remarked by almost every traveller who has visited this island. The mountain rises to a height of 7352 feet as an isolated cone projecting more than 1000 feet above the main ridge to which it belongs. The appearance which has excited so much comment is that just after sunrise the shadow of the Peak seems to rise up in front of the spectator, and then suddenly either to disappear or fall down to the earth.

Various suggestions have been made as to the source of this curious shadow; among others one, which was published in the *Phil. Mag.*, August 1876, that attributed the rise of the shadow to a kind of mirage effect, on the supposition that the air over the low country was much hotter than on the Peak top.

I determined to attempt the discovery of the true nature of this appearance, and was fortunate to see it under circumstances which left no doubt as to the real origin. Through the courtesy and hospitality of Mr. T. N. Christie, of St. Andrew's Plantation, I was able to pass the night on the summit, and to carry up a few necessary instruments.

The morning broke in a very unpromising manner. Heavy clouds lay all about, lightning flickered over a dark bank to the right of the rising sun, and at frequent intervals masses of light vapour blew up from the valley and enveloped the summit in their mist. Suddenly, at 6.30 a.m., the sun peeped through a chink in the eastern sky, and we saw a shadow of the Peak projected on the land; then a little mist drove in front of the